

**SUPERINTENDENT'S ANNUAL NARRATIVE REPORT
FY 2000**

***GLEN CANYON NATIONAL RECREATION AREA
&
RAINBOW BRIDGE NATIONAL MONUMENT***

KAYCI COOK COLLINS, ACTING SUPERINTENDENT

Approved by:

/s/ Kayci Cook Collins

for ***JOSEPH F. ALSTON, SUPERINTENDENT***

October 30, 2000
DATE

I. INTRODUCTION AND BACKGROUND

In accordance with the Government Performance and Results Act (GPRA) of 1993, this **Annual Performance Report** is our performance report for Fiscal Year 2000 on annual goals established in the **Annual Performance Plan and Strategic Plan** for Glen Canyon National Recreation Area (NRA) and Rainbow Bridge National Monument (NM). The **Strategic Plan** is our five-year performance agreement with Congress, our customers, partners, and stakeholders. In it, we state the value we expect to produce for the tax dollars invested in us. We state what we expect to accomplish towards our mission in the next five years with the available fiscal and human resources. This **Annual Performance Plan**, which is a one-year increment of the five-year **Strategic Plan**, describes our annual goals, work plan, expected outcomes, and fiscal and human resources needed for each goal for the current year. It also details the progress to be made on an annual basis toward the completion of the long-term goals identified in our **Strategic Plan**.

II. MISSION STATEMENT

We, the employees of Glen Canyon National Recreation Area and Rainbow Bridge, are dedicated to the resources with which we are entrusted and to the public we serve. We believe in open communication, collaborative stewardship of natural and cultural resources, providing recreational opportunities, and education to support understanding and preservation of Glen Canyon NRA and Rainbow Bridge NM for this and future generations. Our mission statement is:

To provide for public outdoor recreation use and enjoyment of Glen Canyon National Recreation Area and Rainbow Bridge National Monument and to preserve and protect the scenic, scientific, and historic features therein while providing a significant understanding to visitors of the scientific and cultural importance of objects, sites, populations, beliefs, and habitats of the past and the future. To promote the diversity of both water and land-based recreational opportunities within Glen Canyon National Recreation Area.

III. ANNUAL GOALS:

The following goals emulate the National Park Service's mission and long-term goals that are applicable to Glen Canyon National Recreation Area and Rainbow Bridge National Monument. Additionally, specific goals have been written to address concerns unique to Glen Canyon National Recreation Area and/or Rainbow Bridge National Monument.

Annual goals are one-year increments toward achieving long-term, five-year goals, which are measurable. Mission goals continue indefinitely and are inclusive of all the National Park Service does and express specific outcomes expected.

GOAL CATEGORY I: PRESERVE PARK RESOURCES

Mission Goal Ia: Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

Long-term goals: By September 30, 2002:

Ia04: To maintain a quality recreational experience at Lake Powell 99% of all waters tested will meet Utah and Arizona State standards for safe swimming.

FY 00 Annual Goal: By September 30, 2000, 97% of samples taken will meet Utah and Arizona standards for safe swimming.

Performance Report:

Goal was achieved. 97% of all samples taken met state standards. Total ONPS funds expended were \$562,000, and total FTEs expended were 22. Funds expended from Fee Demo sources totaled \$93,000. The Lake Powell water quality program remains a primary source of pride for Glen Canyon NRA. Real results were achieved with public education and cooperation. Ranger contact programs with boaters and beach campers resulted in a substantial increase in porta-potty compliance and zero beach closures in FY 2000.

Ia01A: 1% (6000 acres) of parklands currently impacted by grazing will be restored.

FY 00 Annual Goal: By September 30, 2000, establish a baseline and criteria to differentiate between human and climate caused degradation of grazed lands.

Performance Report:

Goal was not achieved. Work continued on drafting criteria to differentiate human and natural caused disturbance but the draft did not progress to the stage where peer review was appropriate. A final draft will be done in FY01 and peer review initiated.

Livestock disturbance was to be documented in conjunction with the Bureau of Land Management's (BLM) resource review process. Due to changing priorities in BLM a greater emphasis was placed on high priority allotments so the review schedule was changed in FY00. Disturbance inventory efforts were concentrated on specific allotments rather than addressing all 32 allotments in the recreation area. Inventories will be continued as rangeland reviews are rescheduled by BLM in FY01. Total ONPS funds expended were \$10,000, and FTEs expended were 0.3. Fee Demo funds expended were \$17,000.

Ia1A: Maintain 18 acres of disturbed lands as is and prevent additional disturbance.

FY 00 Annual Goal: By September 30, 2000, initiate the draft restoration plan.

Performance Report:

Goal was achieved. Preliminary scoping for the draft restoration plan with Resource Management specialists was initiated. Total ONPS funds expended were \$6,000, and FTEs expended were 0.2.

Ia1B: 1% (3000 acres) of targeted disturbances (invasive plants) will be contained.

FY 00 Annual Goal: By September 30, 2000, the inventory and the GIS analysis to identify potentially affected areas will be completed.

Performance Report:

Goal was not achieved. The inventory efforts were not completed because matching Fee Demonstration project for Exotic Species control was not funded in FY00; this project was to be used to hire a lead person to accomplish field inventory work and prepare an invasive species control plan. GIS development of basic vegetation coverage was completed using soil inventory data. Work will continue on this project in FY01 as the Fee Demonstration funding has been released so position classification recruitment will be initiated in the fall of 2000. This project is planned to take two years. Total ONPS funds expended were \$38,000, and FTEs expended were 0.6.

Ia2A: 10% of identified 1997 park populations of federally listed T&E species with critical habitat on parklands have improving populations.

FY 00 Annual Goal: By September 30, 2000, a plan will be implemented to augment the endangered razorback sucker population in the San Juan Arm as part of the San Juan River Implementation Plan, and the plan for Navajo sedge will be completed.

Performance Report:

Goal was not achieved. Glen Canyon NRA was unable to get voted onto the San Juan Recovery Implementation Program (RIP) Coordinating Committee which is necessary to have a vote in Biology Committee where an effort to include augmentation of razorback suckers in the inflow of Lake Powell could be made. In FY00 Glen Canyon did continue to support inflow area studies conducted by the USGS-BRD. This was the last year of this study and the results of this study will be used in continuing efforts to get the RIP to augment the population.

The Navajo Sedge monitoring plan was not completed. Field work to accurately identify habitat for the plant could not be done as the planned San Juan River trip this year did not take place.

In the future Glen Canyon will continue to attempt to get placed on the San Juan RIP. Field work for the Navajo Sedge will be rescheduled in FY01. Total ONPS funds expended were \$4,000, and FTEs expended were 0.3.

Ia2B: Maintain stable populations for 40% of the 1997 identified T&E species with critical habitat on parklands.

FY 00 Annual Goal: By September 30, 2000, annual monitoring will be completed.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$25,000, and total FTEs expended were 0.4.

Ia5: 37 (50%) historic structures on the 1998 List of Classified Structures are in good condition.

FY 00 Annual Goal: By September 30, 2000, restoration will be started on structures at Lees Ferry and Widows Ledge, and an additional eight structures will be in good condition, bringing the total to 15 (20%) of those listed in the LCS. Annual condition assessment will continue on 37 structures, and stabilization plans will be completed on structures requiring stabilization.

Performance Report:

Goal was not achieved. The Historic Structures Report for Lees Ferry was not completed. It should be completed in early FY 2001. Total ONPS funds expended were \$28,000, and FTEs expended were 1.0.

Ia6: 194 (70%) of applicable preservation and protection standards (277) in recreation area museum collections meet professional standards.

FY 00 Annual Goal: By September 30, 2000, ten additional standards will be acceptable. Access to a professional museum technician will be assured.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$31,000, and FTEs expended were 0.5.

Ia8: 402 (24%) of non-inundated recorded archeological sites on the 1997 Archeological Site Management Information System are in good condition.

FY 00 Annual Goal: By September 30, 2000, using the 1999 survey results and evaluations, determine the number of sites in good condition, and begin stabilizing planning for the number of sites required to meet the long term goal by 2002.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$149,000 and FTEs expended were 4.2.

Mission Goal Ib: The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

Long-term Goals: By September 30, 2002:

Ib01: Develop nine data sets identified in the 1997 basic natural resource inventory to protect and manage natural and recreation resources.

FY 00 Annual Goal: By September 30, 2000, continue data gathering for seven data sets.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$378,000, and FTEs expended were 10.9. Fee Demo funds expended were \$60,000.

Goals Ib2A-E: Increase the information and knowledge stored on 1997 databases gained through inventorying, analyzing, and describing cultural resources not previously inventoried and evaluated in the above databases.

Ib2A: Increase the number of recorded, non-inundated, archeological sites by 150.

FY 00 Annual Goal: By September 30, 2000, add 33 archeological sites to the baseline inventory.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$10,000, and FTEs expended were 0.6.

Ib2B: Add one cultural landscape to park inventory.

FY 00 Annual Goal: By September 30, 2000, monitor one cultural landscape.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$1,000, and FTEs expended were 0.2.

Ib2C: Increase list of classified structures by seven (10%).

FY 00 Annual Goal: By September 30, 2000, add two sites to the LCS.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$3,000, and FTEs expended were 0.3.

Ib2D: Increase catalogued objects by 1712 objects (5%).

FY 00 Annual Goal: By September 30, 2000, an additional 342 objects will be added to the inventory.

Performance Report:

Goal was achieved. Total ONPS funds expended were \$6,000, and FTEs expended were 0.3.

Ib2E: Develop an Ethnographic Resources Inventory.

FY 00 Annual Goal: By September 30, 2000, ...this goal was completed in FY 1999.

Performance Report:

This goal was completed in FY 1999.

GOAL CATEGORY II: PROVIDE FOR THE PUBLIC ENJOYMENT AND VISITOR EXPERIENCE OF PARKS

Mission Goal IIa: Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of recreation area facilities, services, and appropriate recreational opportunities.

Long-term Goals: By September 30, 2002:

IIa1: 90% of recreation area visitors are satisfied with appropriate recreation area facilities, services, and recreational opportunities.

FY 00 Annual Goal: By September 30, 2000, a visitor survey will be completed to develop baseline data on overall visitor satisfaction and 87% of park visitors will continue to rate their satisfaction with appropriate park facilities, services, and recreational opportunities as “good” or “very good”.

Performance Report:

This goal was exceeded. Visitor Satisfaction for both Glen Canyon NRA and Rainbow Bridge NM was 95%. Total ONPS funds expended were \$3,879,000, and FTEs expended were 72.0 for Glen Canyon NRA; and total ONPS funds expended were \$89,000, and FTEs expended were 1.6 for Rainbow Bridge NM.

Fee Demo funds expended were \$40,000.

IIa2. The GLCA visitor accident/incident rate decreases from the FY92-FY96 average of 10.3 to no more than 9.8 (5%) accidents/incidents per 100,000 visitor days.

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FY 00 Annual Goal: By September 30, 2000, reduce the visitor accident/incident rate from the FY92-FY96 average of 10.3 to no more than 10.0 accidents/incidents per 100,000 visitor days.

Performance Report:

This goal was achieved. Total ONPS funds expended were \$3,165,000, and FTEs expended were 49.0. There were 223 visitor accidents/incidents in Glen Canyon NRA during FY 2000. With a total of 4,780,734 Visitor Days, the rate was 4.66. Although a portion of this reduction is, no doubt, related to the revised definition of a visitor "incident", much of the credit for this achievement goes to the Lake Powell Water Safety Council that was formed in FY 2000 to identify primary causal factors for visitor injuries and reduce them. Partnering was accomplished with most of the public and private sector lake users to share data and achieve the greatest effect on safety.

Mission Goal IIb: Park visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations.

Long-term Goals: By September 30, 2002:

IIb1. 60% of park visitors understand and appreciate the significance of the park.

FY 00 Annual Goal: By September 30, 2000, 92% of park visitors understand and appreciate the significance of Glen Canyon NRA, and 74% of park visitors understand and appreciate the significance of Rainbow Bridge NM.

Performance Report:

This goal was exceeded. Visitor Understanding for Glen Canyon NRA was 93 % while the same figure for Rainbow Bridge NM was 90%. Total ONPS funds expended for Glen Canyon NRA were \$695,000 and FTEs expended were 14.2; and total funds expended for Rainbow Bridge NM were \$15,000 and FTEs expended were 0.3.

GOAL CATEGORY IV: ENSURE ORGANIZATIONAL EFFECTIVENESS

Mission Goal IVa: The National Park Service uses current management practices, systems, and technologies to accomplish its mission.

Long-term Goals: By September 30, 2002:

IVa2. 100% of permanent and term employees within the 16 key occupational groups have essential competency needs identified for their positions.

FY 00 Annual Goal: By September 30, 2000, 50% (70) of all permanent and term employees will have identified their essential competencies and developed training plans for meeting training goals.

Performance Report:

Goal was achieved. At least 70 permanent and term employees had essential competencies identified.

IVa3. 100% of permanent and term employees' performance standards are linked to appropriate strategic and annual performance goals.

FY 00 Annual Goal: By September 30, 2000, 40% (56) of all permanent employees have standards linked to appropriate strategic and annual performance plan goals.

Performance Report:

Goal was achieved. At least 56 permanent employees had performance standards linked to appropriate GPRA goals.

IVa4. Increase the number of under-represented groups in targeted positions by four (25%) over 1998 levels.

FY 00 Annual Goal: By September 30, 2000, as vacancies occur within targeted positions, the number of under-represented groups filling those vacancies will increase by four.

Performance Report:

Goal was not achieved. Despite aggressive recruiting, the number of positions occupied by under-represented groups remained at 12.

IVa5. Nine (25%) employee housing units, currently listed as being in poor or fair condition in 1997, have been removed, replaced, or upgraded to good condition.

FY 00 Annual Goal: By September 30, 2000, two employee housing units currently listed in fair or poor condition will be upgraded or replaced. Units currently in good condition will be maintained.

Performance Report:

Goal was achieved. Two units were upgraded.

IVa6A. Reduce Glen Canyon's 5-year (1992-96) average lost time injury rate from 3.62 incidents/100 FTEs to meet the national OSHA standard for federal employees of 2.18 incidents/100 FTEs.

FY 00 Annual Goal: By September 30, 2000, reduce the GLCA lost time injury rate by 2% to 3.04 incidents per 100 FTEs.

Performance Report:

Goal was not achieved. GLCA had 15 lost-time injuries and 181 FTEs in FY 2000 for a lost time injury rate of 8.29 lost-time injuries per 100 FTEs. Although an energetic safety program had been implemented at Glen Canyon NRA, there were a significant number of employee injuries during this fiscal year. The park staff attended a safety training class at Albright Training Center in October 2000, to reexamine and revise the park's approach to employee safety.

IVa6B. Reduce the cost of new workers' compensation costs by 50% based on the Glen Canyon NRA (1992-96) average cost.

FY 00 Annual Goal: By September 30, 2000, reduce the cost of new workers' compensation cases (COP) to no more than \$6573.00, a 35% reduction from the baseline period.

Performance Report:

Goal was not achieved. COP costs in FY 2000 were \$16,500. See discussion under IVa6A above.

Mission Goal IVb: The National Park Service increases its managerial capabilities through initiatives and support from other agencies, organizations, and individuals.

Long-term Goals: By September 30, 2002

IVb1. Increase by 10%, over 1997 levels, the number of volunteer hours.

FY 00 Annual Goal: By September 30, 2000 increase by 6% (665 hours) the number of volunteer hours over the 1997 level (11,537).

Performance Report:

Goal was not achieved. Total Glen Canyon NRA volunteer hours for FY 2000 was 10,590. This goal was not achieved due difficulty both recruiting volunteers and failure to accurately report volunteer hours. We did recruit for volunteers this year for the Trash Tracker program and for campground hosts in the Uplake District, but had poor success with the campground hosts program. We will devise a system for next year to try to encourage supervisors to accurately report volunteer hours.

IVb2A. Increase by 10% (\$3000) over 1997 levels, the dollar amount of cash donations and grants.

FY 00 Annual Goal: By September 30, 2000, grants and cash donations will be increased by 6% (\$1800) over 1997 levels (\$30,000).

Performance Report:

Goal was exceeded. During FY 2000 we received \$33,970 in grants and cash donations.

IVb2C. Increase the value of donations provided by cooperating associations by \$6,900.

FY 00 Annual Goal: By September 30, 2000, increase the value of donations received by cooperating associations by 6% (\$4,140) over 1997 levels (\$69,000).

Performance Report:

This goal was exceeded. The contributions from the Glen Canyon NHA were \$115,584. This was a significant increase over 1997, and it was also the largest contribution in the history of the Glen Canyon Natural History Association

IVb4. Increase by 65% over the 1997 level receipts from park entrance, recreation, and other fees.

FY 00 Annual Goal: By September 30, 2000, fee receipts will be increased by 60% over 1997 levels to \$1,729,600.

Performance Report:

Goal was exceeded. Because of a very well managed Fee Demonstration Program, total fee revenue for FY 2000 was \$2,199,000.

IV. PERFORMANCE MANAGEMENT REVIEW

FY 2000 was another year of learning and change for the staff at Glen Canyon NRA and Rainbow Bridge NM in implementing GPRA. While the new FY 2001 - FY 2005 *Strategic Plan* was formulated and submitted, the FY 2000 performance was still under the old goal structure and technical guidance. The new approach to goals that de-emphasizes rates and

eliminates dollars and FTE calculations from Category IV goals will enable more concentration on the substance of performance based management in the new fiscal year.

Starting with FY 99, the *Annual Performance Plan* and *Work Plans* were linked to Glen Canyon NRA's budget priority setting process with all division chiefs actively managing by goals set forth in the *Strategic Plan*. Any required revisions to the FY 2001 *Annual Performance Plan* will be completed by September 30, 2000 (or two weeks after the FY 2001 Appropriations bill is passed, whichever is later). And the internal park budget priority setting meeting is scheduled for December 2000. Final linking of functional budgets with GPRA goals will occur at this meeting.

V. LIST OF PREPARERS

**Stan Burman, Administrative Officer
Char Obergh, Management Assistant
Stephanie Dubois, Chief of Interpretation
Cindy Ott-Jones, Chief Ranger
John Ritenour, Chief of Resource Management
Dan Bishop, Chief of Facilities
Kathy Fleming, Chief of Concessions
Judee Bevier, Personnel Officer
Candy Poulson, Acting Safety Officer
Josie Sweeney, Acting Fee Manager**

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I MANAGEMENT

Glen Canyon NRA continued to be the focal point on several controversial issues including personal watercraft use, carbon monoxide, Rainbow Bridge lawsuit and draining Lake Powell. All of these issues garnered a great deal of media interest and kept park staff busy throughout FY 2000.

The Natural Bridge and Arch Society (NBAS) filed suit against the National Park Service over the management of Rainbow Bridge National Monument. Plaintiffs claim the National Park Service violates the Establishment Clause of the U.S. Constitution by promoting American Indian religion through signs, tour boat narration and statements in our literature. The National Park Service position is that the plaintiff's claim has no standing - they cannot show harm or threat of recurrent violation. Their allegations of denial of public access are moot - the National Park Service does not prohibit visitors from approaching or walking under Rainbow Bridge as long as they avoid areas that are closed to protect vegetation. The suit is still in the discovery phase.

With the carbon monoxide (CO) related death of two young brothers in August, staff began an intensive education and outreach program to alert boaters to the dangers of CO. The National Institute of Occupational Health and Safety (NIOSH) was called to conduct studies on CO concentrations in a variety of scenarios, including employee safety issues. The study identified lethal levels of CO were created by generators and motors on some houseboats with a rear exhaust design. A multi-agency group, including the U.S. Coast Guard, was formed to further address the concerns and look into possible solutions. The Coast Guard will be working with manufacturers to address the problem.

The Glen Canyon Action Network held a rally on March 14, 2000, at Glen Canyon Dam to garner support for draining Lake Powell. Simultaneously, the Friends of Lake Powell held a counter rally on the opposite side of the lake. Those opposed to draining the lake numbered several hundred, while those supporting the idea were less than 100 in number.

Additionally, we hosted two Congressional visits this year and assisted BLM with two Secretarial visits to announce proposed plans for two new national monuments in areas adjacent to Glen Canyon NRA. The park continues to have excellent rapport with the local county commissioners and board of supervisors. A meeting was held the last week of September in Bullfrog and county commissioners and county sheriffs from the Utah counties of Kane, Garfield, and San Juan were present. This year, Coconino County was also invited and the sheriff was in attendance.

The Antelope Point Operations team continued to meet on an as needed basis and was pleased to finally have the law enforcement MOA between NPS and Navajo Nation signed in May of this year.

Use of personal watercraft continued this year with no change to existing uses. Three surveys (spring, fall and summer) were conducted this year by the University of Minnesota to address visitor characteristics and perceptions with regards to personal watercraft usage on Lake Powell. The final report is expected in FY 2001. Glen Canyon NRA will be initiating a rule making process, including necessary environmental analysis prior to making a final determination on continued use. This process must be completed by September 15, 2002.

All-employee meetings were continued to collect input for the superintendent's management squad to address at their management retreat.

Issues that were addressed by management included communications, computers, employee issues, staffing and organizational issues, facilities and housing concerns. All employees were provided with a response to all concerns brought up at the all employee meetings and encouraged to maintain open lines of communication within their divisions and also among divisions.

Effective January 3, 2000, as directed by Deputy Regional Director Ronald Everhart, Glen Canyon NRA began to provide management supervision, administrative support and professional expertise to Navajo National Monument. Superintendent Charles and his staff met on a regular basis with administrative support staff from Glen Canyon. Glen Canyon contracting, telecommunications, maintenance and computer staff also provided additional staff assistance.

LAKE POWELL WATER SAFETY COUNCIL

The Lake Powell Water Safety Council (LPWSC) is a newly formed organization of public and private partners, united to reduce the numbers of accident-related fatalities and injuries with Glen Canyon National Recreation Area. This objective is accomplished through education, outreach and enforcement.

This year the LPWSC was granted \$5000 through the park budget. That money was used to attend the International Boating and Water Safety Summit, purchase professionally produced radio public service announcements on CD for distribution, and a quantity of ski flags for outreach purposes. Lake Powell Resorts & Marinas and the Lake Powell Yacht Club provided funding for the LPWSC "visitor of the week" award and accompanying radio spot.

Intangible benefits of this partnership include the opportunity for water safety professionals to communicate in an open forum, creating a "clearinghouse" for safety information and trends at Lake Powell.

SPECIAL PARK USES

Thirty-three film permits were issued in FY00. Commercials and advertisements were most prevalent. Filming projects included 6 car commercials (Acura cars [2], Nissan, VW campers, Dodge, BMW), a myriad of other product advertisements (Bayliner boats, Japanese bottled water, Taco Bell, Kodak film, Whirlpool appliances, Dutch hair dye, Japanese coffee, Sapporo beer, suntan lotion), seven shows for TV (UT fishing program, Dunlop Iron Drivers Cup participants, Lake Powell Resorts & Marinas fishing promotion, a children's education program, fishing promotion for Lees Ferry Anglers, a travelogue about Lake Powell, International Adventure Tour participants), four documentaries (still photo shoot of a Colorado River runner and shows about Everett Ruess, Grand Canyon NP and dams), two fashion shoots, two music videos (for a Swedish rock group and an Australian rock group) and one feature film (about migratory birds). Two permits were cancelled before being filmed (Italian phone company advertisement and videos about UT national parks for the 2002 Olympics). Shooting days totaled 93 for the year. Locations included Padre Bay (6), Colorado River between the dam and Lees Ferry (5), Gunsight Canyon (4), the Lees Ferry area (3), Beehives (3), Navajo Canyon (3), Labyrinth (3) Face Canyon (3), the Coves (2), Wahweap Bay (2), Castle Rock (2), Warm Creek Bay (2), Cookie Jar Butte (2), Last Chance Bay (2), Rainbow Bridge (2), Coyote Gulch (2), Hwy 95 near Hite (2). Each of the following locations was used once: Glen Canyon Dam Overlook, Sunrise Overlook, Lone Rock Beach, Wahweap South Entrance Station, Romana Mesa, Wahweap Lodge, Wahweap Marina, Independence Cove, Antelope Island, Forbidding Canyon,

Bullfrog South, Bullfrog Bay and the Burr Trail near Bullfrog. Approximately \$43,400 was generated by film permit cost recovery.

Twenty-six special use permits were issued in FY00. Six organizations held fishing tournaments (UT Bass, WON Bass, Angler's Choice, BASS Inc., Lake Powell Resorts & Marinas and Page Christian School) totaling 35 days. Additionally Lake Powell Resorts & Marinas held a "Million Dollar Fish" contest where one striped bass was tagged and would have entitled the person who caught it to one million dollars. The contest lasted 26 days. Other special park uses included 4 weddings, 2 jeep safaris, 2 church services, 2 SCUBA training sessions, an adventure race, a memorial service, a beach party, a rally in defense of Lake Powell, a camp for handicapped children, one First Amendment literature distribution permit, a family reunion, US Coast Guard Auxiliary training and a permit for special events hosted by Lake Powell Resorts & Marinas. Special events totaled 103 days for the year. Approximately \$6,000 was generated by special use permit cost recovery.

EEO COMMITTEE

The FY 2000 Committee's goals that were established and prioritized early in the year were all met.

The Equal Opportunity Bylaws that were reviewed and revised by the Committee were accepted and approved by the superintendent. A revised Affirmative Action plan submitted by the Committee was approved by the superintendent and validated through 9-30-2003.

Vern Cody successfully managed the mandatory park-wide training, for seasonals and most of the permanent employees.

The committee financed the NAU job fair participation for Glen Canyon. Eileen Martinez, Marge Grassle and Chris Thompson represented Glen Canyon at the NAU Job fair. There was a high volume of interest in the Glen Canyon booth.

Donna Faucett was designated as one of the Downlake EEO counselors and received her certification training. The Uplake EEO position has remained vacant to date.

II ADMINISTRATION

ACQUISITION AND PROPERTY MANAGEMENT

Acquisition

A total of six contracts were awarded totaling over \$2.55 million during the period with a total of \$1.85 million awarded to a small, disadvantaged business under the 8(a) program of the Small Business Administration. Three indefinite quantity contracts for Architect and Engineering services used extensively for project design and planning services Glen Canyon NRA, Arches NP, Hovenweep NM, and Mesa Verde NP.

Small Purchases satisfied 920 DI-1 requisitions totaling \$1.3 million. This included 135 purchase orders, 362 Third Party Drafts, 36 Fedstrip orders, 12 Government Printing Office Orders, and \$190,000 in credit card purchases. Nine purchase orders were also prepared and administered for other parks.

Property Management

A total of seven boats and two house trailers were disposed of through GSA sales. Also miscellaneous boat motors, excess property, scrap metal, and lost-and-found items were sold through the same sales. Approximately 90 computers, 42 printers, monitors, etc. were donated to public schools. GLCA transferred a 5-ton truck to Flagstaff, N.M. and a backhoe to Pipe Springs NM. We picked up from excess a front end loader, Ford semi tractor truck, eight passenger vehicles, and surveying equipment.

AIRCRAFT SERVICES

Flying activities included 665 flight hours on N2PS. N2PS passed the 10,000 flight hour milestone on the airframe. The park Chief Pilot accomplished maintenance training for NPS pilots from GRCA and BIBE. GRCA and BIBE aircraft also received maintenance services such as 100 hr inspections. In-park aviation training was provided for management, basic aviation safety, and hazardous materials.

BUDGET, FISCAL, PAYROLL AND TRAVEL

A summary of Glen Canyon NRA's budget and fee revenue included:

Facilities Operation & Maintenance: Includes buildings, grounds, roads, utilities, boats, solid waste, water and wastewater treatment, water quality, the dive program and maintenance related resource preservation.	\$2,747,500
Visitor Services: Includes law enforcement, search and rescue, dispatch, lake pollution control, emergency medical services, visitor center operations, ranger programs, education, resource protection and concessions management.	\$3,199,700
Resources Management and Preservation: Includes resource preservation for natural and cultural resources, grazing management, water quality assessment, cultural liaison activities, research and science programs.	\$628,200

Administrative Support: Administrative services to support visitor services, facilities and maintenance, and resource management including safety, telecommunications, copiers, aviation, fleet management, boat gas and information resource management support.	\$1,014,500
Park Administration: Includes superintendent's office and administrative support.	\$1,400,100
Fee Revenue: Actual revenues from entrance, user, and special park use fees.	\$2,199,000

A summary of Rainbow Bridge NM's budget:

Visitor Services: Includes protection and education staff.	\$ 27,600
Facilities Operation and Maintenance: Docks, trails, and restrooms.	\$ 76,400

In addition to Glen Canyon NRA's appropriated budget, other funding sources provided approximately 7.5 million dollars for facilities and other projects. These funding sources included state and federal grants and special accounts derived from a percentage of gross receipts from services provided to park visitors by ARAMARK. Some of the major facility projects included the Antelope Point launch ramp and associated facilities, rehabilitation of the Wahweap campground and picnic area, electrical system upgrades at Bullfrog and Halls Crossing, new fire station facilities at Wahweap, restroom improvements at Rainbow Bridge and Halls Crossing, sewer system upgrades at Bullfrog, Halls Crossing, and Hite, and water quality enhancement and visitor facility improvements at Lone Rock. Resource preservation projects included riparian and avian studies, GIS topographic coverage, graffiti removal, exotic species removal, and impact studies associated with the operation of Glen Canyon Dam, and cultural site stabilization and monitoring work.

INFORMATION MANAGEMENT

Continued to reprogram Glen Canyon NRA Web page to provide a wider range of services (i.e. Web ccMail, Scheduling Calendar, Local Property Program, Network Management Program, and a Law Enforcement Program, etc).

Installed new network operating system on five servers, thus insuring the park maintains the most advanced services available.

Upgraded server application software (i.e. Veritas Backup Exec, Travel Manager, Network Instruments Observer, and Link Analyst, Microsoft Windows Services for UNIX, and Terminal Server with WEB component).

Installed a Windows 2000 Server designed to provide Glen Canyon NRA and surrounding park with GIS data.

Installed three wireless links from Headquarters out to remote locations. These links substantially increased data speed and network capacity.

Installed a dedicated 56K circuit from Navajo NM to Headquarters, thus greatly improving their reliability and performance, and configured components for a 128K line to the Airport.

Upgraded network management software, and hired a computer assistant.

Setup a building wide fax system allowing personnel located at headquarters to fax from the desktop.

Setup and configured six terminal server computers ensuring park employees access to park programs, files, and mail information through the web.

Became responsible for supporting Navajo NM's network, computer support, and data requirements.

Installed over 25 new computers, and upgraded park computer components.

Attended the Department of Interior information technology seminar in Denver.

Provided support to area parks and national parks throughout the country.

Established new security procedures and practices for the protection of park assets and employee confidentiality.

Installed new meter utility software for tracking and billing metered utilities.

Installed and configured a new ACJIS Law Enforcement Program designed to make training and queries on automobiles and personnel quicker and simpler.

Performed several electronic mail system upgrades, and automated the upgrade of virus software for Windows 95/98 clients.

Developed the annual Dispatch Database Program component for the continued support of tracking all law enforcement actions.

Installed a server based software application that will enable the Network Administrator to push out software to Windows 95, 98, NT, and 2000 clients, both local and remote.

TELECOMMUNICATIONS

The Telecom Specialist worked on radio replacement of non-narrowband portable radios and replaced thirty older King radios with new ones procured at the end of FY99. This leaves 57 portables that still need upgraded for narrowband conversion. The Telecom Office planned to use radio replacement funds to continue the conversion process, however DOI Directives prevented normal acquisition of analog radios. These were the last analog radios to be purchased.

Replaced the telephone connection blocks at Dangling Rope. Worked with the Maintenance staff to complete installation of more telephone cabling and increase the line capacity in the residential area to 75 pair. This makes the full 25 pair going down to the marina available for use.

Conducted engineering studies for increased services at Lone Rock, Dangling Rope, and Uplake areas.

Installed radio tower at the new SDRO at Hite and installed wiring for telephone and radio control. Relocated base station, remotes, and installed telephones and connection blocks in the new facilities.

Worked with the Computer Specialist to install fiber optic cabling in the Headquarters building. This increased the backbone network speeds and performance of the LAN in the headquarters.

Made wiring changes to Newbridge WAN equipment in the Headquarters and repaired backup power supplies.

Requested FTS for six telephone lines at NAVA. A new telephone switch (PBX) is needed for NAVA to prevent blocked calls and enhance access into and out of NAVA. All other lines will not be required and will be disconnected or changed to OPX lines.

Requested quotes from Williams Communications Solutions for replacement of the Headquarters PBX. There is no more growth potential in this PBX. Funds were requested in PMIS to upgrade the PBX to provide redundancy to protect Dispatch operations, provide voice mail, provide voice over Internet protocol capability and allow more trunking for MCI or connections to Dangling Rope.

Requested quotes from Williams above for PBX upgrade information for NAVA. Entered requests in PMIS for voice mail uplake and at NAVA.

Requested OPX telephone line for Lone Rock. Planned for telephone changes at Lone Rock. Additional lines needed for alarm monitoring and payphone at the beach complex.

Pacific Telecom has been requested to install a payphone at Lone Rock. US West was asked to assist them in installation since they declined to place a payphone in themselves. US West has been reluctant in the past to install services where a valid address does not exist. The Telecom Office has escalated this request and as yet received no response from US West.

Received 400MHz test radios from Adaptive Broadband for testing a digital data link to Dangling Rope. All tests proved that a repeater location on Navajo Mountain or Cummings Mesa is the only way to get a signal into Dangling Rope from Page, AZ. The test radios were then sent back to the manufacturer.

Evaluated the old satellite dish and receivers from Lees Ferry for use downlake. Coax cable for video was then installed connecting all of the conference rooms to the Vermilion Room and a multi-cable feed was run to the roof for signal and control of a dish array.

Made Telephone and data wiring changes in the Headquarters and at Bullfrog.

Requested 56K data circuit from GLCA to NAVA. Dialup data access has averaged \$1200.00 a month since NAVA became administratively tied to GLCA. The 56K circuit will be more reliable, easier to use, and will be approximately \$400 a month.

Installed the old satellite dish from Lees Ferry on top of the Headquarters. An analog plus digital capable receiver was bought to allow training broadcasts to be received in all of the conference rooms in the building. Broadcast reception has been excellent. Conducted the first Satellite training in the building.

Installed new wireless receivers and antennas with the Computer Specialist on the radio towers at Wahweap, on the CHVC and the Headquarters to increase the data WAN speed from 128K to 11mbps. Also extended Ethernet cat5 cable to locations in the CHVC, WW Maintenance complex, Contracting, and the WW SDRO.

Installed new Nortel Option 61 dual processor PBX in the Headquarters. This new switch upgrade has voice mail capability and substantial growth capability for the next ten years. In the process of the upgrade the UPS backup failed and the T1 circuit packs to the outside services were stressed. The T1 packs are covered under our maintenance service agreement, but the UPS will have to be replaced at our cost immediately.

Visited Warm Butte and used GPS data to analyze the possible future use of this site for a downlake repeater to allow improved communications for Lone Rock, The Chains, Wahweap, Headquarters, Antelope Point and Dispatch. Funding was requested in PMIS. Estimate is \$40K.

Installed and conducted training for voice mail on the downlake telephone network. Training included instruction on greetings, password use, and handling messages.

Completed the installation of the 56K data link between GLCA and NAVA. Re-routed all computers at NAVA over the new data link and routed ccMail to NAVA over this path. Also completed the transition of FTS dialing for all telephone lines needed at NAVA. With approved funding by the Superintendent at NAVA, a new PBX was requisitioned. Also an order for four DID trunks for inward dialing to NAVA was placed to Navajo Communications to connect to the new PBX.

Replaced the UPS on the PBX in the headquarters and replaced all T1 circuit packs. The New PBX is now running error free.

The new Nortel Option 11C PBX for NAVA was received and bench tested in the Telecom Office. It was then transported to NAVA and installed. This PBX has growth potential and is equipped to handle multiple calls coming into and out of the NAVA VC simultaneously. All calling arrangements were tested and the switch now awaits DID trunks from Navajo Communications that should be installed during October.

PERSONNEL SERVICES

Recruitment and Staffing:

38 permanent positions were filled (including those with EOD's known through 12/17/00). 10 white females, 1 Asian/Pacific Islander female, 1 Hispanic female, 2 Native American females, and 24 white males were selected.

New Permanent Positions Established:

Computer Spec	GS-0334-05 (entry level)
Supv. VUA	GS-0303-07 (3 positions)
Supv. VUA	GS-0303-06 (2 positions)
VUA	GS-0303-05 (6 positions)
VUA	GS-0303-04 (3 positions)
Park Ranger (P) (Fee Security)	GS-0025-5/7/9 (2 positions)
Utility Systems Repairer/Operator	WG-4749-09
Maintenance Mechanic Supervisor	WS-4749-08

New Term Position Established:

Park Ranger	GS-0025-5/7/9
(Science Education Program Assistant/Specialist)	

Other Classification Actions:

From:

Environmental Spec, GS-0401-12
Concession Mgmt Spec, GS-1101-11
Interdisc. Geographer(GIS), GS-0150-11
Archeologist, GS-193-11
Park Ranger, GS-0025-09

Park Ranger(LE Spec), GS-0025-12

Supv. Dispatcher, GS-2151-08
Maint. Mech., WG-4749-09
Maint. Worker, WG-4749-08
American Indian Liaison Spec. GS-301-09

To:

No change in classification
No change in classification
Geographer, GS-150-12
Archeologist, GS-193-12
Revenue and Fee Bus Manager, GS-1101-11
Supv. Park Ranger (Asst. Chief Ranger, GS-0025-12
No change in classification
Hvy Mobile Equip Mech, WG-5803-10
No change in classification
American Indian Liaison Spec. GS-301-11

New Temporary Positions Advertised and Selected:

Park Ranger (P), GS-05	2 white females, 4 white males
Park Ranger (G), GS-05	1 white female, 1 white male
Park Ranger (Interp), GS-05	4 white males, 6 white females, 2 minority females
Visitor Use Asst., GS-06	1 minority female, 2 white females, 1 white male
Visitor Use Asst., GS-05	2 white males, 2 white females, 1 minority female
Visitor Use Asst., GS-04	3 minority females, 1 minority male, 9 white males, 4 white females
Dispatcher, GS-05	1 white male
Laborer, WG-	4 white males
Nav-aid, WG	1 white male
Bio-Tech, GS-07	1 white female
Arch Tech, GS-07	1 white male
Park Ranger (Film Pmts) GS-05	1 white female
Maintenance Worker, WG-	4 white males, 2 minority females

Rehires:

Park Ranger (LE)	3 white males, 1 white female
Park Ranger(Interp)	4 white females, 3 white males
Bio. Science Tech, GS-07	1 white female
Bio. Science Tech, GS-05	1 white female, 2 white males
Supv VUA, GS-06	1 white female
Supv VUA, GS-05	1 white female
Visitor Use Asst GS-05	1 minority female, 2 white females, 1 white male
Visitor Use Asst GS-04	5 minority females, 7 white females, 1 minority male, 5 white males
Maintenance Worker, WG-05	5 minority males, 6 white males, 1 white female
Laborer, WG-03	2 minority females, 1 white female
Nav Aids Repairer, WG-07	1 white male
MVO, WG-07	1 white male
Sanitarian, GS-11	1 white male

Student Positions:

STEP Park Ranger(Intp)GS-04	1 white female
STEP Park Ranger(Intp)GS-03	1 white female
STEP Park Aid(Intp)GS-01	1 minority female
STEP VUA, GS-04	1 white male
STEP VUA, GS-03	2 white males, 4 white females
STEP VUA, GS-02	1 white male
STEP Adm Supp Clk (Disp), GS-4	1 white female
STEP Office Clerk (Resource), GS-3	1 white female
STEP Bio Tech, GS-4	1 white female, 1 white male
STEP Bio Science Aid, GS-1	1 white male
STEP Bio Science Aid, GS-2	1 minority female
STEP Bio Science Aid, GS-3	1 white female
SCEP Rangeland Mgmt. Spec GS-11	1 white male

Office of Workers Compensation Program

In FY2000 there were 40 new on-the-job injury claims processed. Of these, 23 accidents resulted in no lost time. There were 451 lost time hours during this period, of which 17 injuries accounted for all lost time. Medical costs reported through OWCP Specialist were \$21,253.28. There may have been additional costs not reported to Glen Canyon National Recreation Area.

Incentive Awards

Glen Canyon National Recreation Area presented the following awards to employees:

On-The-Spot Award	104
Time-Off Award	16
Star Award	9
Quality Step Increase	0
Non-Monetary Award	5

Personnel Actions

Approximately 2345 personnel actions, covering the full range of actions, were processed this year.

Drug Testing

Nine permanent and eight seasonal employees were drug tested, all with negative results.

Employee Development

Training courses offered at Glen Canyon National Recreation Area this year included:

- DOIMOCC (Boating Op Certification)
- Fee Collection Training
- Law Enforcement Refresher
- EMT and IEMT Refreshers

Search and Rescue
Seasonal Orientation
Interpretation Orientation
Structural Fire
Critical Incident
Computer Training
Miscellaneous Safety Courses/Exercises
CPR and First Aid
Cultural Considerations
Dive Training
Arcview Training
Aviation Safety
Hazardous Materials and Aviation

III CONCESSIONS MANAGEMENT

Final regulations implementing the National Park Service's Concessions Management Improvement Act (P.L. 105-391) for concessions contracting and standard contract language were published in final in April 2000. This allowed us to begin finalizing the prospectus packages for the Antelope Point Resort and Marina and the existing Wahweap operation. The Incidental Business Permit program continued operating under the authority of NPS-53, Special Park Uses Guideline, even though that guideline was superceded by DO-53. The operational program within the division continued to utilize the Concessions Management Guideline, NPS-48, and implemented some of the changes in the program that were tested and approved. These included the Concessioner Risk Evaluation Program, modified schedules for periodic evaluations, and Core Menu for food and beverage rate approvals.

The primary Concessioner, ARAMARK Sports and Entertainment, Inc., which holds three separate contracts at Glen Canyon NRA, received the Department's Award for Environmental Achievement in the Partnerships category. Mr. Robert Seney and Mr. Dean Crane attended the ceremony held in Washington D.C. this year. They continue to provide expertise in environmental leadership and particularly in the marina industry.

DIVISION PERSONNEL

In FY00 the Concessions Division lapsed the Downlake Concession Specialist position for the entire year. The position was redescribed to incorporate some minor changes and classified as a GS-1101-11 in March. The position was advertised both merit promotion and all sources. The USAJOBS announcement opened on May 3, 2000, and an offer was made to Jacki Blais for a GS-1101-09 (Executive Assistant, BRCA) in July from the Merit Promotion certificate. Due to the regional relocation account being out of money, an enter on duty date of October 8, 2000, the first full pay period in FY00, was negotiated. No other changes occurred in the staffing during the fiscal year. Kathy Fleming, Division Chief; Mary Lou Douglas, Uplake Concession Specialist; and Valerie Hunter, Concessions Specialist remained in their positions. John Gabele, the Seasonal Public Health Service Inspector, returned for the season in April and stayed through the end of the fiscal year. Susan Perkins continued to provide clerical support on a half-time basis through the secretarial pool managed through the Administration Division.

ANTELOPE POINT RESORT AND MARINA CONCESSION CONTRACT

The Phase II Prospectus was drafted upon finalization of the National Park Service's Standard Contract Language and the review process with The Navajo Nation began in April. This process continued through the end of the fiscal year with The Navajo Nation and Regional, Washington, and DOI-Solicitor staff, and was almost complete at that time. The staff at Glen Canyon NRA completed the documents within the prospectus package and facilitated these reviews and the publication of the final documents.

The Washington Concessions staff and Pamela Barkin from DOI-WASO, Solicitor's office assisted in working through these reviews and provided guidance while also working with the few other parks that were the first to be issued. Karen Reese from the Denver Support Office also came to the recreation area for a week to assist in preparing one of the final drafts for review. All staff involved

was working on both Antelope Point and Wahweap simultaneously until it became too cumbersome to produce both complex contract documents at the same time. By concentrating on this important partnership project with The Navajo Nation, we were able to publish this prospectus just after the end of the Fiscal year on October 23, 2000.

CONCESSION AUTHORIZATIONS/CONCESSIONERS

Current Concessions Contracts and Concessions Permits in effect are as follows:

<u>Name</u>	<u>Concid#</u>	<u>Contract #</u>	<u>Exp.Date</u>
Wahweap Lodge & Marina, Inc	GLCA003	CC-GLCA003-69	12/31/2000
Uplake Resorts & Marinas, Inc	GLCA002	CC-GLCA002-88	12/31/2007
Wilderness River Adventures, Inc	GLCA001	CC-GLCA001-93	12/31/2000
AZ Dept. of Economic Security	GLCA017	CC-GLCA017-95	12/31/2000
Page Hospital	GLCA021	CP-GLCA021-94	12/31/2000
High Desert Adventures	GLCA020	CP-GLCA020-95	12/31/2000

Expiration dates for the authorizations with Wilderness River Adventures (GLCA001), ARAMARK-Uplake (GLCA002), Page Hospital-Bullfrog Clinic (GLCA021), High Desert Adventure (GLCA020), and ARAMARK-Wahweap/Downlake (GLCA003) were amended through 12/31/2000 to allow the National Park Service to develop regulations and standard contract language and prospectus elements as a result of the passage of the National Park Service Concession Management Improvement Act of 1998.

CONCESSIONERS

ARAMARK Sports and Entertainment Services, Inc. D.B.A. Lake Powell Resorts and Marinas-Uplake, CC-GLCA002-88.

The Concessioner has satisfactorily fulfilled the requirements of the Contract/Permit Compliance program as identified in NPS-48, Chapter 22 including the "Special Attention Items," Maintenance, Utilities, Accounting Records and Reports, Franchise Fees, and Insurance.

As required by the contract, work continues on the Uplake fee reconsideration. The fee reconsideration will consider the financial impact on any maintenance associated with additional facilities. Work also continues in order to resolve issues related to the Building Improvement Program contract requirements.

The ARAMARK safety program was effectively managed and coordinated by Diana Maris. All training, inspections, injury reporting, and general marina management were efficiently performed and executed without significant problems. As the park has been operating without a Safety Officer, the Concessions Office invited Galen Warren, Risk Manager for the Intermountain Region to do an informal safety inspection. He conducted a walk through inspection of some of the facilities at Bullfrog and Halls Crossing. One of ARAMARK's Safety Officers, Diana Maris, accompanied the group and took notes of all hazards identified. Though many were routine, a few were of a serious nature and the Risk Manager encouraged ARAMARK's Risk Management Staff to complete a thorough inspection of all facilities.

ARAMARK has been instrumental in helping to move the new housing project forward. They are ready to break ground on the first sets of 4-plex's. Work will continue on the housing through the winter with completion scheduled in late FY01 on this phase.

After the tragic death of one of their employees, ARAMARK has hired extra security and brought in Craig Roberts as Security Supervisor. ARAMARK has renewed their commitment to hiring a seasonal staff that will convey a friendly, helpful attitude.

The John Atlantic Burr ferry service between Halls Crossing and Bullfrog continues to offer a much needed service for the visitor and employees of the area. A second ferry is being built and should be operational by the beginning of 2001. The second ferry will also be moored at Halls Crossing.

ARAMARK has instituted an International Hiring Policy in an effort to better recruit globally. They use a variety of domestic and international sources such as Internet, local and international job fairs, employee referral programs, domestic and international job agencies. ARAMARK provides cross training opportunities for skills training and positions throughout the lake. The program has worked out well during the 2000-operating season.

ARAMARK Sports and Entertainment Services, Inc. D.B.A. Lake Powell Resorts and Marina, CC-GLCA003-69 (Downlake)

The Concessioner has satisfactorily fulfilled the requirements of the Contract/Permit Compliance program as identified in NPS-48, Chapter 22 including the "Special Attention Items," Maintenance, Utilities, Accounting Records and Reports, Franchise Fees, and Insurance

Considering the volume of annual visitation to Glen Canyon National Recreation Area, and the number of visitors that utilize concession facilities, written visitor complaints were extremely low during the 2000-operating season. The few complaints received focused on condition of houseboats, lodging rates and boat pump out systems.

The restroom facilities continue to suffer from a great deal of misuse and as a result are in constant need of attention and general maintenance. Phase I of the Campground Master Plan was completed during the summer and Phase II began and should be completed by Memorial Weekend in 2001

The Wahweap marina management staff communicates frequently with the concession's office on issues of mutual concern including vessel size restrictions, services to homeless vessels, sharing information regarding potential illegal or improper commercial activity, and carbon monoxide poisoning. The cooperation and assistance provided by this group due to the staffing changes within the GLCA concessions office is superior.

The staff of ARAMARK has been of great assistance in providing technical assistance and use of their facilities providing needed information and resources to our staff in our work with the Department and other agencies to prevent carbon monoxide poisoning. After the deaths of two children in July, we have received overwhelming support from this Concessioner on this issue. ARAMARK rental fleet boats have not had any fatal incidents as a result of CO, and do not match the design that has been identified as having the most risk. CO detectors are installed on all houseboats in the rental fleet.

Page Hospital, CP-GLCA021-94

The clinic's operating season started May 1, 2000 and continued until October 9, 2000. The operation of the Bullfrog Clinic by Page Hospital was rated as satisfactory during the 2000-operating year. The clinic continued with an overall rating of 5.0. This permit was extended until December 31, 2000.

During the course of the 161 days the clinic was open, the Physician's Assistants (PA) and office staff checked in 1233 patients compared to 1236 patients in 1999. This is a decrease of 3 patients.

The staff continues to provide quality health care to the recreation area visitors despite the operating difficulties inherent in remote area operations. The operation was run professionally by the medical provider that rotated a small number of different PAs during the course of the season.

The staff continues to work well in coordination efforts with several medical evacuation companies and the National Park Service when evacuations were warranted. This year there were 21 helicopter evacuations, 2 fixed wing evacuations and 22 individuals that had to seek further medical assistance, mostly for X-ray, by personal vehicle. There were 157 after hour call-outs during the season; this is a decrease of 13 over the 1999 season. The month of July continues to have the highest number of patients to date with the Clinic staff seeing 330 patients during a total of 31 days.

The following is a breakdown of patients for the term of the current permit:

	1993	1994	1995	1996	1997	1998	1999	2000
Patients	617	709	948	1002	1201	1281	1236	1233
Days Open	136	158	154	160	164	164	164	161
Avg. Pt/Day	4.2	4.5	4.49	6.16	7.33	7.81	7.5	7.66

The clinic staff is to be commended for the effort put forth in continuing to accommodate the residential communities of Bullfrog, Halls Crossing, Hite, and Ticaboo in allowing San Juan County Mobile Van to offer mammograms at reduced rates. In addition, the staff did an outstanding job during the health fair that was offered to local residents at the end of the season.

Work will continue on a new authorization package when staff time is available after the larger contracting actions are completed. The current permit has been extended allowing time for the development of the contract documents.

ARAMARK Sports and Entertainment Service, Inc., D.B.A. Wilderness River Adventures, CC-GLCA001-93

The floating raft trips from the Glen Canyon Dam to Lees Ferry, provided by Wilderness River Adventures (WRA), were satisfactory during the 2000-operating season.

The Management and staff of WRA are to be commended for their continued outstanding service provided to the National Park Service (NPS) and the visitor. WRA provides assistance to the National Park Service for river clean-up, emergency response (fire), maintenance of the restroom facilities, and equipment transportation.

A total of 41,199 passengers enjoyed passage on the guided river trips through Glen Canyon to Lees Ferry. There were 6,993 more passengers than the 1999-operating season.

The NPS was glad to see the training trips continue, using the expertise of many NPS employees to explain not only the background of the National Park System, but the history of the area, sharing geological information and giving the guides, old and new a chance to ask questions so they are much better prepared for informing the visitor.

The new Downlake Concessions Management Specialist, Jacki Blais was very pleased with her first experience doing an evaluation on the operation. As she stated in her report, the safety message with precautions was easily understood by the group, the interpretive message was appropriate and interesting, the lunch presentation was suited to varied tastes and was pleased that the guides were diligent in reminding guests to continue to drink plenty of fluids.

This is the only contract that produces any significant funds in the franchise fee 80% account at the recreation area. A total of 10% of gross receipts is collected from the operator, and projects have been identified and approved. Expenditures of these funds did not occur during FY00 as we were awaiting policy decisions regarding use of the funds for non-permanent personal services. We will begin with two years of revenue to expend on approved projects.

This contract was also extended through December of 2000 to allow for implementation of new legislation.

High Desert Adventures, CP-GLCA020-95

The Concessioner continues to provide a quality outdoor experience to the visitor and has fulfilled all requirements of the Contract/Permit Compliance program as identified in NPS-48. The staff continues to do an excellent job of notifying the National Park Service in advance of any trip with a list of personnel and equipment involved location and duration of each trip.

The following trips were taken within Glen Canyon National Recreation Area during the 2000-operating season:

<u>Date</u>	<u>Length and Type of Trip</u>	<u>Number of Passengers</u>
Oct. 29-31,1999	3-day Escalante Special Tour	12 passengers **
May 23-24, 2000	2-day Scenic Hiking Tour	6 passengers
May 26-30, 2000	5-day Escalante Special Tour	12 passengers **
June 1-4, 2000	4-day Scenic Hiking Tour	6 passengers
June 14-16, 2000	3-day Scenic Hiking Tour	6 passengers
July 21-23, 2000	3-day Scenic Hiking Tour	14 passengers
Aug. 27-28, 2000	2-day Scenic Hiking Tour	6 passengers
Sept. 14-18, 2000	5-day Escalante Special Tour	12 passengers **
Sept. 26-27, 2000	2-day Scenic Hiking Tour	6 passengers
Sept 28-10/1/2000	4-day Escalante Hiking Tour	11 passengers *
Totals	10 trips	91 passengers

* Halls Crossing Launch (special permission was given to launch from there)

** Bullfrog Launch (special permission was given to launch from there due to wheelchair access)

The Scenic Hiking Tour is launched from the Warm Creek area with the take out point the same. The Escalante Hiking Tour is launched from Stanton Creek with the take out point the same, with the exception of the one trip that was launched from Halls Crossing and the 3 Special Population Trips launched from Bullfrog.

Arizona Department Of Economic Security D.B.A. Zyla's Dam Shop, CP-GLCA017-95

The services provided at the Carl Hayden Visitor Center Gift Shop during the 2000 operating season were satisfactory.

Zyla Cox has operated the shop for an entire season and continues to make great strides in ordering a better quality of merchandise. She has rearranged some of the smaller merchandise displays making a better flow pattern in the small shop. New display cases have been installed and have added to the appearance of the shop.

The new Downlake Concessions Management Specialist will be working with Zyla Cox and the Arizona Department of Economic Security to define the appropriateness of the "Penny Machine" located in the hall outside the gift shop doors as the machine is located outside the assigned area of the gift shop. A decision will be made to either move the machine inside the gift shop or removed from the premises.

Zyla's Dam Shop, is also covered by the Bureau of Reclamation Safety Program. The fire extinguishers, Chemical Hazard Communication Program, and Safety Inspection Program is conducted by the BOR and noted to be in compliance with OSHA regulations. NPS Loss Control Evaluation considers the BOR program during evaluation of the program.

The Public Health Sanitarian inspected this operation twice during the operating season. The operation offers only coffee and wrapped snacks and was found to be very clean and received a "satisfactory" rating.

INCIDENTAL BUSINESS PERMIT PROGRAM

The annual general IBP meeting was held in Page, Arizona, in February 2000 and well attended. Guest Speakers included Field Auditor Chris Crocker from the Unemployment Tax Section of the Arizona Department of Economic Security and Investigations Supervisor Mary Dalrymple from the Industrial Commission of Arizona to discuss legalities of the Arizona Workers Compensation Insurance laws. The meeting in the fall with the Fishing Guides has also become an annual event since their season is opposite the marina and tourism based IBP's. The Seasonal Sanitarian met again with backcountry operators and to assist them in providing a better service through education on specific food sanitation and health issues. The Concessions Assistant attended the annual BLM, Grand Staircase Escalante National Monument (GSENM) outfitter meeting to accommodate these operators who are permitted for their activity by our two agencies.

The non-refundable application charge remained at \$125 and the annual cost for renewal IBP's remained at \$300. This fee on an overall program management level is not adequately recovering the staff costs from the Concessions Division or the other staff from other divisions who provide support for this program. A decision was made during FY00 to not increase these fees, pending the implementation of Section 418 of the Concessions Management Improvement Act. It is anticipated that significant modification in the Glen Canyon NRA program will occur upon the finalization of the regulations, and we didn't want to make a change in fees just prior to implementing another new program for these permits/authorizations. Improvements to the process and procedures as well as some changes in specific provisions were made throughout the year, with anticipation that the entire program would change upon full implementation of the NPS Concessions Management Improvement Act (P.L. 105-391) Total FY00 Deposits in the program were \$47,275. This amount fully supported the Concessions Assistant, GS-07 and some incidental support and travel costs.

From October 1, 1999 through September 30, 2000, 143 IBP's were issued for the following services:

- Boat Caretaking Services- 32
- Incidental Boat Repairs - 21**
- Incidental Specialty Services (non-mechanical repairs) - 13
- Launch, Retrieval, Boat hauling of vessels - 28
- Fishing Guide Service - 21
- Guided Backcountry Hiking Tours - 10
- Hunting Guide Service - 2
- Water Ski/Wakeboard Instruction - 0
- Kayak/Canoe guided excursions - 6
- SCUBA Diving Instruction, Workshops and minor Salvage- 4
- Land-Based Tours - 4
- Marine Salvage - 1
- Telephone Pay Phone Service at Lone Rock - 1

Three Educational Fee Waivers were granted to IBP's who qualified for this waiver. The Concessions Division worked with the fee collection staff and the other permitting staff in the recreation area to improve the process of granting fee waivers, and made some minor procedural improvements.

SUMMARY

In general, it has been another year of change in the concessions program servicewide and at Glen Canyon National Recreation Area. The coming year promises to be full of new challenges and adventures. We are looking forward to the publication of prospectus packages for the Antelope Point project and the Wahweap operation, and hope to be able to move forward with all expired contracts. Our relationships with the concessioners have been established after the turnover experienced in 1999 and 2000, and as a result an improvements in visitors services have been effected.

IV INTERPRETATION

FY00 BUDGET

Glen Canyon ONPS	\$ 641,900
Rainbow Bridge ONPS	\$ 14,200
TOTAL, ONPS	\$ 656,100
Water Quality Interpretation (Fee Demo)	\$ 54,500
Science Education (AZ Community Foundation)	\$ 19,375
EXXON/National Park Foundation P.A.R.K.S.	\$ 6,500
TOTAL, Other Sources	\$ 80,375
TOTAL, ONPS and Other Sources	\$ 736,475

STAFFING

8.0 permanent FTEs
5.8 temporary FTEs
13.8 total FTEs

VISITOR CONTACTS

Carl Hayden Visitor Center	867,735
Navajo Bridge Interpretive Center	51,303
Bullfrog Visitor Center	8,422
Rainbow Bridge formal talks	3,409
Wahweap amphitheater program	14,724
Defiance House	13,189
Petroglyph Panel	6,437
Roving assignments-general	105,789
Roving-lake water quality	13,913
Special events	1,053
School programs	1,540
TOTAL INTERPRETIVE CONTACTS	1,087,082

VISITOR CENTERS

Carl Hayden Visitor Center at Glen Canyon Dam hosted 867,735 visitors during 2000, about 41,000 less than 1999's record high. Of those, 82,003 participated in guided tours of the Glen Canyon Dam, 43,340 viewed one of the automated audio-visual program, and 2,737 attended a ranger talk. Carl Hayden Visitor Center was open year-round, with the exception of Thanksgiving, Christmas, and New Year's Day, with extended hours (8 a.m. - 7 p.m.) mid-April through mid-October.

Bullfrog Visitor Center saw 7,991 people during FY00, a decline from the previous year. Bullfrog Visitor Center was closed from November 1, 1999 to April 3, 2000; open all but 4 days in April and 5 days in May (due to seasonal training schedules). From June through September, the visitor center was open. The NPS still relies on the Glen Canyon Natural History Association to staff the

visitor center. They continue to struggle in finding employees who can work the season entire needed and who also have housing. The visitor center retail operation still does not support itself but is critical in orienting park visitors within this subdistrict.

Navajo Bridge Interpretive Center hosted 51,303 visitors during FY00. The facility opened in mid-April and closed in mid-November. It was staffed 100% by Glen Canyon Natural History Association employees; 2 maintenance and 3 bookstore staff. The NHA still does not make enough money from book sales to completely support this operation. Lees Ferry interpreters worked at Navajo Bridge frequently, but primarily outdoors on the historic bridge. Both NPS and NHA are working on joint employee schedules for FY01 that would provide an NPS employee for the bookstore, thereby allowing the NHA some ability to streamline staff.

COOPERATING ASSOCIATION

The energies of the Glen Canyon Natural History Association were directed in large part this year towards the Carl Hayden Visitor Center and the Navajo Bridge Interpretive Center.

Gross FY00 sales at the three Glen Canyon Natural History Association outlets were:

Carl Hayden Visitor Center	\$ 367,450
Bullfrog Visitor Center	\$ 6,895
Navajo Bridge Interpretive Center	<u>\$ 75,468</u>

Gross Revenues	\$ 449,813
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WAHWEAP AND CARL HAYDEN V.C. SUBDISTRICT

2 permanent full-time rangers; 2 full-time park guides; up to 14 seasonal employees (including 3 hired via STEP authority and 1 SCA)

- Daily visitor center coverage
- Daily launch ramp presence at 3 launch ramps (Wahweap and Stateline during the mornings primarily)
- Daily water quality patrols. Joint patrols held with law enforcement Friday and Saturday weekly, with one 3-day backcountry joint patrol every pay period.
- Daily developed and beach area roves
- 2 day/week water safety programs
- 2 day/week guided hikes
- 1 day/month guided four-wheel drive trips
- 6 day/week evening programs
- 4-5 day/week joint Wilderness-NPS Colorado River float trips
- Intermittent staffing of Wahweap Ranger Station
- approximately 40 educational programs throughout the year
- attendance at special events such as Page Attacks Trash, Boy Scoutarama, and the Lake Powell Yacht Club annual outing

LEES FERRY SUBDISTRICT

2 seasonal employees, one who departed in June and was not replaced

- Daily roving at Navajo Bridge Interpretive Center, Paria Beach, launch ramp, Lonely Dell Ranch, Lees Ferry Fort, and the campground
- Fee collection duties consisting of routine short-term staffing of Lees Ferry Ranger Station to allow visitors to trade-in and trade-up passes

DANGLING ROPE/RAINBOW BRIDGE SUBDISTRICT

1 subject-to-furlough ranger (late February - mid November) and 2 seasonal employees

- Daily coverage at Rainbow Bridge
- Occasional short-term shoreline roving

BULLFROG SUBDISTRICT

1 subject-to-furlough ranger (only partially filled from March-June); 4 seasonals (including 1 SCA)

- 6 day/week water quality patrols; overnight patrols 4 times/pay period; Re-involvement of and coordination with law enforcement rangers. Also, some additional day-trip water quality patrols.
- 7 day/week coverage at Defiance House
- Expanded scope and coverage of roving, averaging 5-6 days/week. Expanded rove area to include more consistent coverage of launch ramp, as well as adding Halls Crossing and the ferry to our rove schedule.
- Better coverage of the Bullfrog Visitor Center than we have had in the past. NHA covered 7 days/week starting in May and ending in late August. 5 day/week coverage by NHA in September and October. Due to lack of a subdistrict position, we were unable to be open in March or November.
- Occasional special and education programs.

HALLS CROSSING SUBDISTRICT

1 seasonal

- Halls Crossing-based interpreter provided roving coverage at the marina on a consistent basis. Contact station was intermittently staffed by this position but was not utilized to any great extent by the public.
- This position was fully integrated with the Bullfrog operation, providing coverage for water quality, Defiance House, roving, and visitor center coverage.

HITE SUBDISTRICT

1 seasonal supplemented to a small degree on days off by a visitor use assistant

- Daily beach and developed area roving, including fee compliance checks
- Daily short-term staffing of ranger station
- Occasional Colorado River/Dark Canyon water quality patrols

- Interpreter provided original research for an exhibit reflecting some of Hite's early history. This research involved the documentation of the activities at Hite from approximately 1940-1963, culminating in the addition of newly recorded oral histories and historic photos for the park archives.

INFORMATION REQUESTS

During FY00, visitor center staffs park-wide responded to 10,241 requests for information (8,417 phone, 1,824 email or letter).

FORMAL EDUCATION PROGRAMS

The *Field Science Partnership* between the Page Unified School District and the National Park Service at Glen Canyon National Recreation Area continued to garner numerous accolades and awards this year. Joéle Doty, science education specialist, was nominated for and received the regional Freeman Tilden Award for her leadership of this project. The Partnership was entered into the Busch Gardens Environmental Excellence Awards, and won in the category of "Wildlife Partnerships." This award came with \$10,000 and a trip for teacher, 4 students, and NPS liaison to SeaWorld, where students were filmed for the Jack Hanna Wild America television show. Additionally, a middle school teacher, wishing to expand the program to 7th graders, was a recipient of a \$10,000 Toyota Tapestry grant to start a "lake fluctuation zone" study. Perhaps most impressive was the award given by the American Museum of Natural History's Young Naturalist Awards 2000 to Field Science Partnership senior, Jayrene June. Jayrene won 1st place among 12th graders for her paper, "The Indian Ricegrass." The award consisted of a trip to New York City for Jayrene and her father, a behind-the-scenes visit and ceremony at the American Museum of Natural History, the publishing of portions of her paper in "Natural History" magazine and all of it on the website.

This was the last year of partial funding of the Field Science Partnership from the Arizona Community Foundation (to the amount of \$19,400), all of which was used toward salary. That was not enough money to cover salary costs for the subject-to-furlough liaison position. Consequently, a decision was made to move Joéle in April into the vacant Bullfrog subdistrict interpreter position for the remainder of the fiscal year. Later, she vacated the position and accepted a job at Biscayne National Park. From August through November, seasonal interpreter Kenny Clarke picked up the duties of the Science Education Specialist. When his seasonal hours expired, subject-to-furlough Rainbow Bridge interpreter Marianne Karraker picked up the duties since she would otherwise have been furloughed. Additional funding for this program (\$6,500 for supplies, equipment, travel) came from an EXXON/National Park Foundation P.A.R.K.S. grant.

This piece-meal approach to providing leadership for this position has been very difficult. Not only is it hard for the students involved, who perform best and with the highest levels of interaction when they have bonded well with the NPS representative; but it also makes applying for and administering grants in support of this partnership much more difficult. There's a significant learning curve for this dynamic program, and understanding all of its depth in ways that make it easy to articulate takes time.

Still the students in the program continued to monitor wintertime *e. coli*/fecal coliform levels at 2 lake sites, and studied the razorback sucker populations and aquatic ecology. The students added to the website, and offered age-appropriate educational programs to over 1,000 younger students.

Lake Powell Pure water quality boat patrols entered their fourth year of operation. Both uplake and downlake, the program was coordinated and led by the interpretation staff. This year, a significant increase in commitment and contribution by law enforcement was seen. To begin with, law enforcement specialist Dave Sandbakken and interpretation seasonal Allen Malmquist met with the U.S. Magistrate to explain the history of human sanitation problems, education efforts the NPS had undertaken, and what was still needed. The results were that numerous citations were written for non-compliant camps. The Magistrate additionally authorized Allen Malmquist to write probable cause statements for citations to be signed later by law enforcement rangers. This occurred when a law enforcement ranger was not on patrol with Allen.

Although percentages of non-compliance are not easy to compare from year-to-year (since the parameters used for determining non-compliance have evolved), we do trust our monthly figures that detail non-compliance rates for 2000: in June, July, and August, when patrols were operating optimally, non-compliance rates were 12-15%; during shoulder seasons, when fewer patrols existed, non-compliance rates doubled to over 30%.

VOLUNTEER-IN-PARKS PROGRAM

Within Glen Canyon National Recreation Area and Rainbow Bridge National Monument, 218 volunteers donated a total of 9,109 hours. Notable donations include 4,046 hours donated by Trash Tracker volunteers. Regional VIP funds in the amounts of \$4,500 and \$1,000 for Glen Canyon National Recreation Area and Rainbow Bridge National Monument, respectively, were used to support the volunteer program. During the busy season, lack of trailer spaces with hookups, or other housing options for volunteers, impedes the number of volunteers available to Glen Canyon and Rainbow Bridge. Perhaps the most significant limitation, though, is in finding supervisors willing to take on volunteers.

OTHER

- Glen Canyon's Interpretation Division won the highest regional award for an interpretation program—the Garrison Gold Award.
- Stephanie Dubois, Chief of Interpretation, was Acting Superintendent of Colorado National Monument, August-November, 2000. Glenn Gossard, Downlake District Interpreter, became the Acting Chief in Steph's absence, with contributions coming also from Rick Jones, Carl Hayden Visitor Center Interpreter and Eileen Martinez, Wahweap Subdistrict Interpreter. Glenn was recognized with a temporary promotion to a GS-12; Rick and Eileen with monetary awards.

V. RESOURCE MANAGEMENT

In FY 2000 the Archeologist (Cultural Program Manager) and Geographic Information System Specialist were reclassified as GS12s. Major events in FY 2000 included: Completion of the Navajo Generating Station scrubber installation reducing sulfur emissions but leaving the brown nitrate cloud very visible; Lake Powell was the subject of the annual North American Lake Management Society in December 1999, the remaining Altex drill hole in the Orange Cliffs was plugged in January; and NPS and Garfield County Commissioners and staff visited the Orange Cliffs to review road maintenance standards. Glen Canyon hosted the Plateau Cluster Natural Resource Advisory Group meeting in March on Lake Powell.

Resource staff was involved in development of the Inventory and Monitoring proposals for the northern and southern networks (John Spence is on the southern network Steering Committee. Final negotiations between the Robbers Roost permittee and the Grand Canyon Trust resulted in changes in the allotment boundary to remove grazing from the Glen Canyon portion (all cattle will be removed by December 2001). Efforts to develop an Air Tour Management Plan will await completion of implementation regulations by the FAA.

Major cooperative efforts this year included efforts with the States of Utah and Arizona to get Lake Powell designated as a No-Discharge body of water by the EPA, implementation of TEHABI a cooperative range ecology and planning program between Utah State University, Bureau of Land Management and Glen Canyon that provides student interns with a field/education experience, and Glen Canyon staff involvement on the Surplus Criteria EIS team representing Glen Canyon, Grand Canyon, and Lake Mead concerns. Under the guidance of the Range Ecologist (Ben Bobowski) Jayrene June a Page High School student in the student hiring program completed a study of Indian rice grass utilization resulting in receiving one of two awards presented by the American Natural History Museum in a nationwide competition.

Two personal injury accidents occurred. While stepping down from one level to another to go down into a drainage the Range Ecologist place his foot on an unstable surface and broke his ankle as his weight shifted (good, high top boots reduced the extent of the fracture). The second injury was a rattlesnake bite to the toe that occurred while the Biologist was moving from the boat to his campsite in the dark while wearing tevas.

FY00 Budget

\$ 636,200	Park Resource Management (ONPS)
20,000	Emergency stabilization of Hi-Boy House Ruin (Vanishing Treasures)
10,800	Cooperative tamarisk removal in Coyote Canyon (GLCA/BLM)(NRPP)
38,000	Peregrine Falcon Monitoring (NRPP)
28,800	Water Quality (Fee Demo)
60,000	ArcInfo desktop GIS support for other divisions (Fee Demo)
40,000	Graffiti Removal/Defiance House Ruin trail stabilization (Fee Demo)
42,900	Develop Action Plans for grazing management (Fee Demo)
35,000	Monitor terrace erosion (Grand Canyon Monitoring and Research Center-GCMRC)
102,800	Monitor riparian vegetation (GCMRC)

1,500	GIS support (GCMRC)
10,000	Support lake and river water monitoring (GCMRC)
27,500	Monitor cultural resources and accomplish testing, dam to Lees Ferry (GCMRC)
16,000	Hi-Water zone study (Bureau of Reclamation Central Utah Project)
15,000	Interagency intern range program (Bureau of Land Management, Utah State University, Fee Demo)
10,000	Nursery In-flow study support (Bureau of Reclamation)
<hr/>	
\$ 1,094,500	

RESEARCH COORDINATION ACTIVITIES

Research Project Organization

Glen Canyon NRA Research Study Proposal (RSP) project files contain 290 entries for natural, cultural, or palentological projects either ongoing or completed. Included in this number are twenty projects conducted by park staff. Twenty-five projects conducted along the Colorado River in both Grand Canyon NP and Glen Canyon NRA as part of the Grand Canyon Monitoring and Research Center (GCMRC) program.

Permitting

Glen Canyon NRA issued seven Special Use Permits in 2000 for research within the park. Another 20 permits were issued by Grand Canyon NP as part of the cooperative agreement between the two parks facilitating the Grand Canyon Monitoring and Research Program efforts. Grand Canyon Monitoring and Research expends approximately \$6 million each year on research and monitoring efforts between the two parks. A comprehensive Special Use Permit was issued to the Utah Division of Wildlife Resources for their five ongoing projects related to the recreational fisheries in Lake Powell. Negotiations were initiated with the BLM (Monticello) regarding the issuance of river permits for research on the San Juan River. Specific conditions were developed to ensure that the resources of the canyon were preserved. A research permit was issued to the Museum of Northern Arizona to conduct a partial excavation of a plesiosaur fossil in the Tropic Shale along the Warm Creek road. Work will continue in 2001 to remove the remainder of the skeleton.

The Research Coordinator participated on a service-wide committee to develop a draft NPS Reference Manual for research and collecting within the National Park Service (RM-77).

Proposal development

The Research Coordinator coordinated the submission of over 15 research and resource management funding proposals in 2000 for NPS (SEPAS) and external funding sources.

Fish Management Plan

As required by the Fish Management Plan, representatives from UDWR and Glen Canyon NRA met to discuss upcoming management programs regarding recreational fisheries.

Glen Canyon Dam Adaptive Management Program

Two AMWG meetings were held in 2000 (January and July). Eight Technical Workgroup meetings were held throughout the year. The FY-2001 GCMRC workplan was reviewed and approved. The FY-2002 conceptual workplan was reviewed and approved. The legitimacy of the Lake Powell monitoring program was settled when a compromise split in effort was made between monitoring on Lake Powell related to downstream resources (mostly water quality) and monitoring of resources that remain upstream. Those that relate to downstream became officially part of the Adaptive Management Program. A specific Lake Powell Monitoring program was developed.

Flood flows - No flows above power plant capacity occurred in 2000 since the hydrologic trigger was not reached. Further review of the flood avoidance criteria by members of the TWG resulted in no change in strategy putting the hydrologic triggering criteria in jeopardy. The restrictions placed on above power plant flows by the upper basin states is beginning to put into question the ability of the DOI Secretary to implement the spirit of the Glen Canyon Dam EIS Record of Decision.

Temperature Control Device (TCD)- The Bureau of Reclamation (BOR) suspended efforts to issue the final EA for constructing a Temperature Control Device on Glen Canyon Dam. During the suspension, the BOR and the GCMRC will develop an adequate fish monitoring program to ensure that TCD caused temperatures changes can be adequately monitored. Further, the development of Colorado River Interim Surplus Criteria have complicated the proposed construction design of the TCD. The BOR is expected to wait until the final criteria are developed before proceeding with finalizing the EA and TCD design and construction.

Lake Powell monitoring - A Lake Powell monitoring plan was developed, closely reviewed by the Research Coordinator and ultimately approved by the AMWG. Monitoring in 2000 consisted of quarterly trips and monthly forebay sampling.

San Juan River Recovery Implementation Program (RIP)

The NPS was again denied membership on the San Juan RIP Coordinating and Biology Committees even though Glen Canyon NRA includes 20% of the free flowing river and critical habitat for endangered fish. Glen Canyon NRA suspended its active role with the San Juan RIP due to illness of the Aquatic Ecologist. It is imperative that the NPS become active in that program again. The research coordinator issued two permits for research within the San Juan River associated with the RIP.

Wide Hollow Reservoir

The BLM is considering a proposal from the town of Escalante, UT to construct a new reservoir on BLM land that will partially dewater certain tributaries to the Escalante River at certain times. Glen Canyon NRA is coordinating with the BLM in its review and has issued comments regarding the effects of the proposal on the Federal Reserved Water Rights for Glen Canyon NRA. There is a concern that loss of water in the springtime period could cause impact to boaters who occasionally float the Escalante River. The NPS has recommended that additional analysis be conducted and a review of the reserved water rights be completed.

Colorado River Interim Surplus Criteria

In early 2000 the Department of the Interior through the Bureau of Reclamation (BOR) began work on developing interim surplus water criteria for the Colorado River. These criteria would allow California to continue to obtain Colorado River water under prescribed circumstances in excess of its compact allocation of 4.4 maf. It would be allowed to have this water for a period of 15 years during which time it would implement conservation measures and transfer agreements such that its reliance in water above its prescribed allocation would not be necessary. An EIS was written to analyze the environmental consequences of the various water allocation plans. The proposal had the potential to affect various NPS resources in three national park areas since it would potentially lower water levels in the two reservoirs and affect the flows between lakes Powell and Mead. The Research Coordinator from Glen Canyon was selected by the leadership of the three affected parks to represent the NPS in negotiations with the BOR and in the development of the EIS. The negotiations extended over most of the year. The research coordinator was successful in getting the BOR to understand the NPS issues at stake in the proposal.

Of great concern was the effect of implementing the criteria on beach habitat building flows (BHBF) frequency through Glen Canyon and Grand Canyon. Because of intense negotiations, the NPS was able to interject a specific mitigation strategy to counteract a potential reduction in potential. Specifically, a BHBF test flow program was called for in the Record of Decision that would be developed through the Adaptive Management Workgroup. That program would consist of a series of flows that could be outside the hydrologic triggering criteria and would be implemented over the next 15 years. The purpose of the test would be to understand how to better use BHBF flows to benefit the downstream resources in Glen Canyon and Grand Canyon. The Record of Decision also required BOR to fulfill 106 and 110 responsibilities that will require them to accomplish mitigation when sites are exposed below 3708' elevation.

Air Tour Management Plans

PL 106-181 was passed in April 2000 that regulated air tour activity over park units. It mandated that any operator who conducted air tours over parks would be managed through an air-tour management plan (ATMP) developed jointly between the NPS and FAA. The legislation and the FAA affect numerous park units and NPS are now attempting to implement the requirements of the law. Several air tour operators have been identified within Glen Canyon that work out of Page or surrounding areas. The Coordinator has been designated the contact person for implementation of the ATMP legislation within Glen Canyon. NPS cannot take any action until FAA issued implementing regulations. The act also precludes establishment of new air tour routes over parks until regulations and an ATMP are completed.

Inventory and Monitoring

The Research Coordinator continued as a member of the steering committee for the NPS I&M program. Vertebrate inventories were initiated in FY-2000. All networks developed specific inventory strategies. The Northern Colorado Plateau cluster will receive its first installment of monitoring funds in 2001. It is hoped that the northern and southern networks can be combined using a single oversight committee. The vegetation mapping program within WASO I&M was reviewed by the coordinator serving on a specialist panel. It was found that the vegetation mapping should be revised and made more workable within the NPS.

Escalante River Wild and Scenic Designation

The coordinator was assigned the task of developing a NPS proposal for wild, scenic or recreational status for the Escalante River watershed for Glen Canyon NRA. In conjunction with the BLM, USFS, and Utah an MOU was signed agreeing to work cooperatively to evaluate river segments within the Escalante River drainage. The BLM prepared a general management plan that incorporated the final recommendation of the group. The other federal agencies were expected to evaluate and nominate segments within their jurisdictions. After the initial BLM evaluation Utah determined that it could not proactively advocate designation at this time. Because of Utah's reluctance, Glen Canyon NRA management determined that the NPS nomination would be postponed.

Rainbow Bridge National Monument (NM) Water Rights

The Water Rights staff in the Water Resource Division worked with Glen Canyon staff to develop text of the water rights agreement with the State of Utah regarding water in Rainbow Bridge NM. All Rainbow Bridge Consultation tribes have reviewed the text and it is now being finalized between the Water Rights staff and Utah.

AQUATIC RESOURCES (WATER QUALITY)

Public Health

The Beach Monitoring Program continued in collaboration with the Utah and Arizona Departments of Environmental Quality per the 1996 Strategic Plan to Protect Water Quality at Lake Powell. The Resource Management Division participated in the Lake Powell Technical Advisory Committee, which evaluates field and lab procedures and provides technical guidance.

Aquatic Program staff made presentations on the Beach Monitoring Program at professional meetings including the Environmental Protection Agency West Coast Regional Beach Conference in San Diego, California, the North American Lake Management Society Meeting in Reno, Nevada, and the National Park Service Water Resources Division Water/Aquatic Professionals Meeting in Fort Collins, Colorado. Glen Canyon NRA Aquatic Program staff were funded through the Water Resources Division to represent the National Park Service at the U.S. Geological Survey conference, Building Capabilities for Monitoring and Assessment in Public Health Microbiology in Columbus, Ohio. The Glen Canyon NRA Beach Monitoring Program serves as a model for National Park Service units Lake Mead NRA, Chattahoochee River NRA, and Zion NP as well as other entities beginning new programs.

Glen Canyon NRA continued to operate the Wahweap and Bullfrog labs during the 2000 season. Both labs maintained Class II Laboratory Certification for Environmental Testing through the Utah Department of Health, Bureau of Laboratory Improvement. The Quality Assurance Project Plan and Standard Operating Procedures for Glen Canyon NRA Water Quality Labs was revised and approved prior to the 2000 sampling season.

Thirty-two routine sites were sampled for bacterial concentration at least every other week between Memorial Day and Labor Day of 2000, resulting in over 300 samples processed. Over 350 additional samples were processed from randomly selected beaches throughout the lake and suspected problem areas. Sampling of random beaches and suspected problem areas is intended to locate potential

problem areas that may require regular monitoring and to maintain the high standards of public health protection as sampling sites are dropped from the routine list due to good water quality.

Of all the water samples analyzed for fecal coliform and/or *Escherichia coli* during the 2000 season, two samples from marina areas exceeded the maximum allowable limit. Maintenance personnel were alerted to the high counts, and subsequent sampling in each case showed that bacterial concentrations had dropped to acceptable levels. One beach sample exceeded the maximum allowable limit resulting in a resample event at Lone Rock Beach. Re-sampling showed acceptable bacterial levels, and no further action was taken. There were no beach closures during the 2000 season. The apparent good water quality is undoubtedly due to the implementation of the strategic plan and, perhaps, also a consequence of the nearly constant lake elevation throughout the 2000 season.

The Beach Waste Survey continued for its second year. Six beaches were monitored for human waste. Waste was collected, and its location was logged on aerial photographs. No clear lake-wide trends are obvious except that waste on the beaches is still a problem. One factor that continues is that the presence of tamarisk provides a screen for people that defecate on the beaches. A proposal to remove the screen in select locations and determine if it does eliminate the problem is being developed.

The Microbial Source Tracking Study has been nearly finished. Sources of bacteria in Lake Powell generally followed expectations, i.e., at each site there was a greater influence of wildlife than expected.

Cooperative Field Science Program

Resource staff continued to participate in the Cooperative Field Science Program with the Page High School. Assistance to this program was provided by aquatic staff in the form of presentations to the class, fieldwork assistance, and supply needs. The program educates high school students and gives them hands on experience in aquatic issues of concern to Glen Canyon NRA. Students test local beaches, evaluating the collected water for total coliform and *Escherichia coli* levels during low visitation periods. Students educate the community and other students on how and why beach closures occur and the meaning of indicator organism presence.

Students also monitor water quality and assist in harvest of Razorback Suckers being raised in the Lake Powell Golf Course ponds as an experimental population. Students share their knowledge and experience with professionals, community groups, and other students generating community support, positive feelings, and public education in helping to save and understand an endangered species.

No Discharge Designation

The U.S. Environmental Protection Agency (EPA) approved the designation of Lake Powell as a "No Discharge" body of water. The No Discharge designation brings consistency to the regulations of the EPA, Utah, Arizona, the Coast Guard, and Glen Canyon NRA on black water discharge in Lake Powell. The multi-year effort of gaining cooperation between the states, National Park Service, and EPA was part of the strategic plan of 1996.

NPS/US Geologic Survey (USGS) Projects

Two proposals for cooperative projects between the NPS and U.S. Geological Survey (USGS) were funded for 2001-2003. One study will examine the effects of visitor use on the side canyons of Lake Powell. Field work conducted over the next two years will involve the taking water quality parameter profiles, collecting depth specific water samples for analysis of nutrients and contaminants (including some testing for PAH's), and measuring micro-currents. Three similar canyons with varied visitor use were selected using a geographic information system model. One canyon will be closed for the duration of the study.

The second USGS study will examine the Colorado River sediment delta for extent and depth, as well as concentration of contaminants. There is great interest in the levels of contaminants being sequestered in the deltas of Lake Powell. Extent and depth of the sediment delta will be carefully determined and compared to historical studies of Colorado sedimentation as well as the recently developed bathymetric model. Cores will be collected from the accumulated sediment to determine if contaminants are being concentrated.

Limnology

The Aquatics Program in cooperation with Grand Canyon Monitoring and Research Center has continued to collect limnological data on Lake Powell. Water quality parameter profiles were done at 20 to 25 established stations along the Escalante River, San Juan River, and the main stem of the Colorado River Channel, as well as above and below the dam in 2000. Depth specific water samples are also collected for evaluation of nutrients and some contaminants. The focus of the program is to assess the impacts of dam operations on water quality resources in Lake Powell and downstream.

Fisheries

The Aquatics Program, in cooperation with the U.S. Bureau of Reclamation, U.S. Geological Survey Biological Resource Division, and Utah Division of Wildlife Resources continued to study the inflow and transition zones of the lake. The goal of this study is to examine changes in nutrients, productivity (chlorophyll, phytoplankton, zooplankton, fish), and interflow characteristics from the inflow delta of the reservoir to a distance of about 20km downstream. Sampling occurred once monthly from May through October.

Sport fisheries of Lake Powell were healthy for the 2000 season. Utah Division of Wildlife Resource personnel report that there has been a measurable shad population in open water, providing an abundant food source for sport fish. Utah is promoting the harvest of striped bass and may choose to encourage small mouth bass harvest.

Exotic Species

The State of Utah formed the Utah Aquatic Nuisance Species Action Team (UANSAT) to coordinate protection of Utah's waters from exotic species. All surface waters of Utah are at risk; but Lake Powell is considered the most likely port of entry because of high visitation. Aquatic Program staff have assisted UANSAT in development of a Memorandum of Understanding, sign and brochure design,

distribution of educational material, and the development of a prevention strategy within the State of Utah.

The Zebra Mussel Prevention Program continued through 2000. Approximately 55 boats entered Glen Canyon NRA that were registered in states currently identified as being infested with Zebra Mussels. Fifty-five boats from infested states are a reduction from about 70 boats in 1999. Fourteen of the 55 boats redeemed coupons, provided by the program, for a free boat washing to remove zebra mussels and other exotic species. A majority (41) launched without being cleaned presenting a clear threat of introduction of the organism into Lake Powell. A monitoring program has been put into place to detect Zebra Mussels if they exist in Lake Powell; ten percent of the aids to navigation (buoys) are inspected for mussels. There have been no Zebra Mussels found yet. With the signing of the Executive Order on Invasive Species (Feb 3, 1999) an increase in prevention initiatives and available resources are expected.

Entomology

The aquatic staff continued to collect benthic macroinvertebrate samples at the inflow areas of the Escalante and San Juan Rivers. Additional macroinvertebrate sampling was conducted in Bowns Canyon. The samples were sorted and identified by the Bureau of Land Management Aquatic Ecosystem Laboratory in Logan, Utah, and a report was submitted to Glen Canyon NRA. Macroinvertebrate data over time allows analysis of trends in ecosystem health.

Colorado River Terrace Photo Monitoring

Throughout 2000, Aquatic Program personnel maintained two automated cameras on the river below the dam. Located at 9.8 and 0.5 miles upstream from Lee's Ferry, these cameras are programmed to take a picture each day of beach and terrace areas to monitor for changes. The project began in 1992. During the summer of 2000, photos were sent to Northern Arizona University for analysis. Monitoring will be continued through 2001.

Lake Powell Cooperators Group

The Lake Powell Cooperators group, formed by a memorandum of understanding in 1998, has continued to meet for information exchange and fostering partnerships between agencies active on Lake Powell. Signatory agencies include the National Park Service, U.S. Geological Survey, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Utah Division of Water Quality, Utah Division of Wildlife Resources, Arizona Water Quality Division, Arizona Game and Fish Department, and Navaho Nation Environmental Protection Agency. Other participants include U. S. Bureau of Indian Affairs, U.S. Coast Guard Auxiliary, Utah Department of Environmental Quality, Utah Department of Health, Utah Parks and Recreation, Southwest Utah Public Health Department, Arizona Department of Environmental Quality, Coconino County Department of Health, Grand Canyon Monitoring and Research Center, Northern Arizona University, Utah State University, University of Utah, Page High School, Navaho Generating Station, and ARAMARK. Current efforts of the group are focussed on developing a universally accessible data platform to serve all cooperators and determination of shared information needs to promote cooperative efforts between agencies.

CULTURAL RESOURCES

Lake-wide Assessment Program

A total of 45 sites in the assessment program were visited during the course of four multi-day trips and a number of one-day trips. Areas covered included the Escalante, Uplake, Midlake, Downlake, and Orange Cliffs assessment regions. Unsupervised and unauthorized visitation remains the highest impact agent, particularly at sites in the vicinity of Lake Powell. Six sites visited are in excellent/stable condition, 21 are in good/stable condition, and 18 are in fair condition.

Twenty-six structures within the 45 sites visited are listed on the recreation area List of Classified Structures (LCS). These include 15 structures in the Lees Ferry/Lonely Dell Ranch National Historic District that were assessed as part of a Historic Structures Report. Wall-by-wall condition assessments were performed for all structures and in some cases, additional baseline documentation such as structure size, wall length and height, and construction techniques were also recorded.

Site Documentation

In a continuing effort to identify and document new sites, 24 unrecorded sites were located and documented during FY00.

Site Stabilization

Vanishing Treasures provided funding for stabilization work at Hi-Boy House in Moqui Canyon. Kathy Fiero and her stabilization crew from Mesa Verde spent a week in late March at the site, carrying out the recommendations made in the stabilization plan produced in FY99.

Defiance House Trail Rehabilitation Project

Using Fee Demo dollars, the trail leading up to Defiance House Ruin was stabilized and improved during rather arduous four and one-half 8-day/10 hour per day work sessions. Participants included personnel from Maintenance, Law Enforcement, and Cultural Resources. The rehabilitation has greatly improved visitor safety and resource protection by clearly identifying the route, widening the tread, lessening the grade, removing tripping hazards, and installing stairs over some of the steepest portions.

Grand Canyon Monitoring and Research Center (GCMRC)

In FY99, all river sites were re-evaluated for eligibility and impacts from dam operations by archeologists from Glen Canyon NRA, the Bureau of Reclamation (BOR) and Western Area Power Administration (WAPA). Four sites were identified as being in need of testing. Testing of the first site was completed in FY99. In FY00, site AZ:C:2:77 was tested for nature and extent of any existing cultural deposits. A crew from WACC, along with personnel from Glen Canyon NRA, performed the testing and determined that the site had been irreparably damaged by erosion and is no longer eligible for the National Register.

ARPA

An investigation was launched into possible ARPA violations at a number of sites on the Kaiparowits Plateau. Criminal Investigator Joe Sumner, Archeologist Goetze, and two climbing rangers rappelled into two cliff sites to check their condition and perform site documentation. Evidence suggests that both had been previously entered. The investigation continues.

Graffiti Removal at the Descending Sheep Panel

J. Claire Dean Associates was hired to perform graffiti removal at the Descending Sheep Panel (AZ:C:2:38) along the Colorado River below the Dam. She spent four days at the site and removed years of accumulated graffiti, providing a new baseline from which to monitor future impacts to the site.

Lees Ferry/Lonely Dell Ranch Historic Structures Report

In FY99, the recreation area contracted with Alliance Architects out of Phoenix to write a Historic Structures Report (HSR) as preparation for preservation activities at Lees Ferry/Lonely Dell Ranch National Historic District. The HSR was completed in September 2000 and preservation activities will commence during FY01. This project is funded out of Fee Demo dollars and is being facilitated by Goetze and Sayre Hutchison, Historical Architect from the Intermountain Region.

Rainbow Bridge National Monument Administrative History

Graduate student David Sproul, supervised by Professor Hal Rothman of the University of Nevada, Las Vegas, continued to work on the Administrative History of Rainbow Bridge National Monument, begun in FY99. The Intermountain Region provides funding for the project. The history will be completed in early FY01.

Compliance

Two development projects were initiated during FY00 that required implementation of Section 106. One required a survey for activities related to the proposed constructed wetlands project at Wahweap sewage treatment plant. A very large lithic scattered was located and documented. The second project required monitoring during fence construction at the Halls Crossing sewage treatment plant. One site was located and documented and the project was revised to avoid the site.

Curation

Vicki Webster, Southeast Utah Group curator, spent a week in March and a week in September accessioning and cataloguing newly collected materials and producing all required year-end reports. Dezi Lynn, seasonal arch tech, re-housed the entire photo collection, and began the involved task of providing more complete descriptions of previously catalogued archival materials for the Finder's Guide. There are now approximately 133,000 items in the collection.

Database/Base Map Management

Sixty backlogged IMACS site forms were entered into the IMACS database.

Training/Meetings

Goetze attended a NAGPRA update meeting in Farmington, a Section 106 workshop in Phoenix, Cultural Sensitivity training in Flagstaff, and ARCVIEW training at headquarters. She participated on a SEPAS prioritization panel at the Regional Office in April, and continued her duties as a member of the Cultural Resources Advisory Team (CRAT), the Vanishing Treasures Advisory Team, and the Glen Canyon NRA EO Committee. She also completed a stint as Secretary/Treasurer for the Glen Canyon Employee and Alumni Association.

Goetze gave a talk to the Amateur Archeologists Club of Fredonia, spoke to a Boy Scout troop about artifacts, and participated in a resource management briefing for Kayci Cook, GLCAs new Assistant Superintendent. She also provided cultural resource training for interpretation, law enforcement, Ben Bobowski's class "Allotment Management Planning; a Practicum", and for the Wilderness River Adventures guide training.

TERRESTRIAL PROGRAM

Resource staff continued inventory, monitoring and management activities addressing vegetation and flora, threatened and endangered species, wildlife, exotic (invasive) plant species, and grazing management.

Exotic plants:

- Control of Russian Knapweed at Halls Crossing and Lees Ferry continued, with all aboveground shoots eliminated.
- Ravenna Grass is under control at Lees Ferry.
- All large patches of tamarisk between Hurricane Wash and the Escalante River through Coyote Gulch have been eliminated.
- Worked with private contractors and the Grand Canyon Wildlands Council on a tamarisk control project at Lee's Ferry, to be started in early 2001.

T&E Species:

- Continued baseline surveys of bald and golden eagles in Glen Canyon NRA.
- Monitored peregrine falcon nest success and productivity.
- Prepared a database and GIS map of 17 years of peregrine falcon monitoring data.
- Examined the feasibility of reducing powerline-related raptor kills at Glen Canyon NRA and provided recommendations to power utility companies.

Vegetation and Flora

- Completed a revised vegetation classification for the Colorado Plateau to be used in the joint southern and northern network inventory programs.
- Initiated a review and revision of the Glen Canyon NRA flora for use on the Glen Canyon web site.

I&M Projects:

- Dr. Spence co-authored the southern Colorado Plateau Network inventory plan, writing the sections on flora, vegetation, physical and biological setting.
- Completed fieldwork on Glen Canyon NRA bird inventory program.
- Prepared a field checklist of the birds of Glen Canyon NRA for the interpretive division.
- Prepared a comprehensive annotated checklist of the birds of Glen Canyon NRA, documenting the occurrence of 308 species.
- Dr. Spence provided support and expertise towards the preparation of the northern Colorado Plateau Network inventory plan.

Research Projects:

- Fieldwork for the 5-year Grand Canyon NP and Glen Canyon NRA Colorado River bird-monitoring program was completed in 2000. A March 2000 protocol evaluation panel trip on the bird monitoring was completed successfully.
- The second year of a 4-year research program on determining effective methods of monitoring livestock grazing impacts was completed.
- Fieldwork for the Central Utah Project on characterization of Glen Canyon riparian vegetation was initiated.

Training and meetings:

- Dr. Spence completed the following courses; Supervision, the next step; NEPA and 106 compliance; Arcview training.
- Attended the fifth biennial conference on research on Colorado Plateau parks, Flagstaff, October 26-29, 1999. Presented two papers, 1) Monitoring of river waterfowl in Glen Canyon 1991-1999, and 2) Climate of the central Colorado Plateau.
- Invited to a 2-day Colorado Plateau ecoregional planning workshop hosted by the Nature Conservancy, November 8-9, 1999.
- Attended the first planning meeting for the northern Colorado Plateau network inventory program in Moab February 22-24, 2000.
- Attended the first planning meeting for the southern Colorado Plateau network inventory program in Moab February 29-March 1, 2000.
- Invited symposium speaker at the southwestern desert spring conference in Tucson, May 4-7, 2000.
- Provided training to the interpretive division May 11, 2000.
- Attended the combined southern and northern Colorado Plateau networks inventory meeting, Moab, May 23-25, 2000.
- Represented the NPS at public scoping meeting in Kanab, Utah for the Grand Staircase-Escalante National Monument grazing EIS.

Professional activities and publications:

- Manuscript reviewer for the scientific journal *The Bryologist*.
- Member, southern Colorado Plateau inventory and monitoring steering committee.
- Completed fieldwork for the Arizona Breeding Bird Atlas, 1993-2000 as regional coordinator for the North Kaibab Region.
- Rated a job cert for a GS11/12 botanist at Zion National Park.
- Spence, J.R. 2001. Spring-supported vegetation along the Colorado River, central Colorado Plateau: floristics, vegetation structure and environment. Book chapter for upcoming book on *Springs of the American Southwest*. University of Arizona Press, Tucson (in press).

- Spence, J.R. 2001. Climate of the central Colorado Plateau, Utah and Arizona: characterization and recent trends. In Proceedings of the Fifth Biennial Conference on Research on the Colorado Plateau. *USGSFRES/COPL/2001* (in press).
- LaRue, C.T., N.M. Brown, L. Dickson, J.R. Spence, and L.T. Stevens. 2001. New bird records for the greater Grand Canyon Region. *Western Birds* 32 (in press).

Range Program:

The year has been characterized by cooperative efforts to address rangeland health issues throughout GLCA. Regular duties included working closely with the Bureau of Land Management to evaluate rangeland health conditions and develop or review many environmental assessments. Aside from the regular activities, there have been some specific accomplishments that have strengthened existing partnerships and developed new ones. In addition, there have been many projects that have been both initiated and completed during the year that have assisted in the protection or improvement of cultural and natural resources of Glen Canyon NRA. Below are some highlights of these accomplishments:

- Resolved the water rights and access issues between the NPS and A.C. Ekker, permittee of the Robber's Roost Allotment (A.C. Ekker has since died in a plane crash, November 2000)
- Organized with the BLM and the permittee of the Robber's Roost Allotment to prepare for the "buy out" of grazing rights to the allotment. The rights were purchased by a trust during 2000. Livestock are scheduled to be removed within one year of completion of a fence that will secure the area. Estimated removal time is during 2001.
- Organized and conducted an interagency meeting addressing grazing issues on Glen Canyon NRA. Participants included the Bureau of Land Management (BLM) from the St. George, Escalante, Kanab, Hanksville, Richfield and Monticello offices as well as Utah State University (USU) representatives. During this meeting we summarized grazing activities and set agendas for the calendar year 2000.
- Presented two posters at the Society for Rangeland Management annual meeting in Boise, Idaho. The first poster was the summarization of the statistical validity of the rangeland monitoring information currently collected on Glen Canyon NRA by the BLM. The second poster was describing the Tehabi partnership and program developed by the NPS, BLM and USU.
- Taught a course (two class groups) at Page Unified High School that focused on rangeland ecology. Students completed lab and field exercises that synthesized the elements of biology and ecology taught in the freshman biology class.
- Mentored a Page Unified High School student, Jayrene June. Jayrene completed research on the height and weight relationships of Indian Ricegrass. This research has already been instrumental in the evaluation of the Kaiparowits Plateau and the subsequent removal of livestock (discussed below). Jayrene summarized her research and won the Young Naturalists Award presented by the American Museum of Natural History. Her efforts were part of the Field Science Partnership program managed by Joele Doty, NPS Interpretation Division.

- Ben Bobowski successfully completed his comprehensive examinations. This is a requirement of his PhD program at USU and the SCEP position with the NPS.
- He presented the elements of the Tehabi program to NPS, BLM, and US Forest Service representatives in Washington D.C.. The presentation has resulted in support and program development. Organized and instructed an interagency field course sponsored by USU, BLM, and the NPS. This two-week course addressed the cultural, natural, social, political, and economic issues of the Lake Canyon Allotment.
- Organized, instructed, supervised, and mentored four interns (two at Escalante; two at Bullfrog) that addressed management issues of shared allotments between the BLM and NPS. Students prepared draft management plans and collected/summarized monitoring data (natural and cultural) for use in land management planning. Tehabi of USU sponsored the internships.
- Research regarding the low aerial photography of rangelands completed. Developed protocols for the monitoring of rangelands using this tool that are biologically and statistically meaningful.
- Completed research and prepared a draft plan (conceptual) for monitoring rangelands at Glen Canyon NRA.
- Worked cooperatively with the BLM to address the rangeland health issues of the Kaiparowits Plateau. This was (and continues to be) an intensive effort to remove livestock and to restore the condition of the rangeland.
- Designed and implemented a repeat photography monitoring system on the Sewing Machine Allotment. This is the first monitoring system in place on the allotment and has already been instrumental in the reduction of grazing for the area. The system is maintained by the BLM, Hanksville UT.
- Staff participated in the Grazing EIS public meetings sponsored by the Grand Staircase-Escalante National Monument. As a Core Team Member of the EIS development committee, Ben Bobowski or John Spence represented NPS interests at public meetings in Kanab and Salt Lake City Utah.

GEOGRAPHICAL INFORMATION SYSTEM (GIS)

The GIS plan was revised and has been reviewed by IMR-GIS. The plan describes the present system, staffing and planned changes; a budget program projection reflecting staffing, maintenance and warrantee contracts, equipment, and supplies and materials; the Glen Canyon metadata standard, process, and format; as well as an appendix describing existing coverages and data bases as a reference for non-GIS personnel.

Hardware and Software - The UNIX based Software and Hardware was upgraded and backups maintained of Geographical Information System databases (Arc/Info 8.02/Solaris).

ArcView Training - Training was provided and equipment and software purchased to implement Desktop Analytical tools throughout the park. Sixteen employees representing all divisions are now able to access and use this system.

Peregrine Falcon Program - Assisted in the relocation and correction of Peregrine Falcon Eyries and designed an Access database and converted all data to Arc/Info and ArcView (FY1980-FY2000).

Lake Powell Mapping Project - The final Quality Assurance and Rasterization was completed in early FY2000 for the Benthos of Lake Powell. The project was done in cooperation with the Grand Canyon Monitoring and Research Center (GCMRC), Flagstaff, Arizona. The coverage is 5 gigabytes in size and vectors are available to the public on the Internet.

Aquatic Ecology Program - GIS, in cooperation with the Aquatic Ecologist and staff, perfected a Benthic Habitat/Water Quality GIS model. This model was created to identify canyons of likeness for a 3-canyon study in cooperation with the USGS BRD - Water Quality Division. The purpose is to have the ability to identify canyons of like size, volume, orientation, illumination, benthic illumination, Length/width ratio and associated factors that potentially affect the water quality and access visitor impact on Lake Powell. Three canyons were identified for use in a visitor impact study to be conducted by the USGS and NPS. 3-meter benthic DEMs, Slope and Aspect coverages were created for each of the 13 water quality zones and exported to ArcView.

Vegetation Mapping Program - Glen Canyon National Recreation Area Vegetation Database was updated. A total of 78 vegetation field maps were created for field studies in cooperation with the BRD. Riparian vegetation maps of river test plots were also created. Digital Photos were obtained and geographically projected in NAD83 to support of the Old High Water Zone Study. Multi-spectral imagery was obtained for San Juan, Escalante and Colorado River and was Geographically projected to NAD83 and checked for accuracy. Landsat Imagery was obtained and projected to NAD83, UTM Zone 12. 3D renderings of Kaparowitz Plateau were created.

Range Program - Data dictionary was created for the Glen Canyon grazing database outlining field types and descriptions. Grazing and season of use maps were created.

Antelope Point Project - A second GPS Survey and Boundary mapping project was conducted in cooperation with Facilities Management to address a jurisdiction boundary dispute. Aerial photomaps were produced for use at Navajo Nation and National Park Service Public Meetings.

GPS Program - GIS provided GPS support to Cultural Resources, Natural Resources, Law Enforcement and Professional Services in support of incidents, surveys, research and monitoring. Established ground control points for Slickrock Canyon fire assessment. GPS survey was conducted at Wahweap sewage ponds to establish survey ground control. GPS survey was conducted at Bullfrog in support of murder investigation. A survey of the shoreline for Lake Powell was conducted using GPS for the purpose of quality assurance of Benthic Mapping Project.

Geology - Meetings were conducted as to the progress of Geological mapping of Glen Canyon National Recreation Area and a Geologic Data Browser request submitted.

GIS Database Management - A comprehensive index of Glen Canyon National Recreation Area GIS coverages and data sources was updated for the purpose of data documentation and end user data access on new GIS server. Over 5 thousand coverages and data files were reprojected to NAD83 and initial metadata created in the Arc Document AML standard format. Thirty baseline metadata coverages were

created and sent to the National Data Clearinghouse in South Carolina in the standard NPS format. SEPAS metadata proposal was accepted for the creation of 250 complete metadata coverages, FY2001 (\$10,000). 78 10 meter Digital Elevation Models were processed and converted to the GLCA GIS database. 375 digital orthophotographs were processed and converted to the GLCA GIS database. Supported Grand Canyon National Park GIS by scanning historical maps, mastering on CDROM and mailed.

Law Enforcement - Crime scene photographs were digitized, cropped, re-sampled, blown up and plotted for court presentation in support of a Bullfrog homicide trial. Antelope Point boundary correction.

Training - The GIS Specialist attended 9 days of ERDAS Imagine software training in Denver Co.

AMERICAN INDIAN LIAISON

Ongoing cultural projects:

Liaison and coordination between park managers and five separate American Indian tribal governments and/or people was ongoing to accomplish consultation, understanding, and information exchange.

Rainbow Bridge National Monument's Native American Consultation Committee (NACC) continues to have its annual meetings. The trail work from the walkway dock to the Bridge has been rehabilitated and a small shade structure has been constructed for the benefit of the Interpretative staff and some visitors. The wayside exhibits have been placed on the walkway dock and new restrooms have been constructed.

The Native American Graves Protection and Repatriation (NAGPR) program at Glen Canyon NRA had been working on a Memorandum of Understanding (MOU). This MOU will be between tribes and Glen Canyon NRA to clarify the process in the event of inadvertent discoveries of human remains in the park. The draft MOU is being reviewed by all parties involved and the process is expected to be slow.

The Glen Canyon NRA and Rainbow Bridge National Monument acquired an ethnobotany resource study involving Navajo and San Juan Southern Paiute tribes. Before the document is finalized, a follow up consultation had to be made with those tribal members that had input into the document.

Pauline provided language assistance to the U.S. Department of Justice on the Voter's Rights Program on the Navajo Indian Reservation.

Liaison assistance to other parks and agency:

Petrified Forest National Park and Capitol Reef National Park were provided assistance in organizing consultations with Navajo chapters on the tribal affiliations with the parks. Navajo language translation was provided in conducting interviews with Navajo elders regarding park resources and their need for access into the park.

Petrified Forest National Park as a result formed a consultation committee of the Navajo Nation Chapters surrounding the park.

Navajo National Monument is currently working on its general management plan. Pauline has been involved in providing support for the affiliated American Indian tribes' consultation meetings. The plan is anticipated for completion in December 2001.

Training:

Pauline Wilson assisted the Glen Canyon Interpretative staff in their orientation of the park for their seasonal staff.

Denver - National Park Service provided a workshop on the Cultural Considerations in working with Native American Workforce which Pauline attended to provide a cross cultural interaction for the course to be affective.

Other:

Pauline continues as the Special Emphasis Program Coordinator and attends the Equal Employment Opportunity (EEO) committee meetings for the park.

VI FACILITIES MANAGEMENT

FUNDING AND SPECIAL PROJECTS

ONPS funding GLCA & RABR allocation	\$2,709,929	
Electrical Income	\$ 293,801	
Water/Sewer Income	\$ 552,138	
Housing Permanent (includes carryover)		\$ 361,418
Housing Seasonal (includes carryover)	\$ 58,360	
	\$3,975,646	
Comparison previous year (FY99)	\$4,069,273	

The following list consists of non-repetitive special projects that were accomplished by the division through day/labor or contracts in FY00:

Dangling Rope Helipad	\$ 19,700
Halls Crossing Lust Remedial	\$ 40,000
Dangling Rope Sewer Lagoon	\$ 275,000
Rehab Halls Crossing Sewer	\$ 500,000
Bullfrog Sewer/Utilities COR	\$ 181,800
Hite Sewer	\$ 49,600
Wahweap Sewer Lines	\$ 382,200
Colorado River Toilets	\$ 197,100
Lees Ferry Water Line	\$ 25,600
Wahweap Backup Generator	\$ 34,700
Halls Crossing/Hite Generator	\$ 1,500
	\$ 1,707,200

WORK REQUESTS

Total Work Requests FY00	242
Total Work Request Backlog FY99	99
% Of Work Request Completed	59%

CONCESSION SPECIAL ACCOUNTS PROJECTS

The Capital Improvement Account (CIA) collected \$1,737,543 and expended \$893,950 (includes carryover dollars).

The Campground Improvement Fund (CIF) collected approximately \$75,298. Building Account to improve the Halls Crossing Campground.

The Construction Set-aside (CSA) fund collected \$3,988,000 and expended \$2,223,000.

PROJECTS COMPLETED IN FY00:		
CIA	01	BULLFROG CONCESSIONS HOUSING MASTER
CIA	02	BULLFROG ELECTRICAL UPGRADE

CIA	09	BULLFROG FIRE STATION
CIA	14	HITE FIRE STATION
CSA	32DR	DANGLING ROPE PUMPOUT
CSA	32HT	HITE PUMPOUT
CSA	47	WAHWEAP COMPGROUND REHAB-PHASE I
CSA	65B	WAHWEAP/BULLFROG LIFT STATION UPGRADE
CSA	77	BULLFROG SLIPS PARKING LOT
CSA	78	BULLFROG DEFIANCE HOUSE PARKING LOT
CSA	86	HALLS CROSSING REPLACE MARINA GANGWAY

PROJECTS UNDERWAY IN FY00		
CIA	03	BULLFROG EXP INFRASTRUCTURE
CIA	06	RAINBOW BRIDGE REPLACE RESTROOMS
CIA	07	HALLS CROSSING EXP/UPGRAD INFRASTRUCTURE
CIA	08	WAHWEAP WELL REHAB
CIA	11	WAHWEAP MARINA RESTROOMS
CIA	16	BULLFROG/HALLS CROSSING INFRASTRUCUTRE/HOUSEKEEPING
CIA	17	HALLS CROSSING SLIPS RESTROOMS
CIA	18	BULLFROG CONCESSIONER HOUSING
CIA	19	HALLS CROSSING CONCESSIONER HOUSING
CIA	21	HALLS CROSSING ELECTRICAL UPGRADE
CIA	22	RIPRAP BULLFROG LOTS B/C, PICNIC
CIF	12	WAHWEAP REPLACE PICNIC TABLES
CIF	14	HALLS CROSSING REPLACE GRILLS
CIF	15	BULLFROG A/B/C LOOP DESIGN
CIF	16	HALLS CROSSING CAMPGROUND IMPROVEMENT
CSA	23	HITE W/S SYSTEM UPGRADE
CSA	31	LAKE POWELL CLEAN WATER
CSA	43	WAHWEAP FIRE STATION
CSA	44	UPLAKE SIGNS
CSA	46	BULLFROG/HALLS CROSSING EXPANSION DOCK
CSA	48	BULLFROG CAMPGROUND UPGRADE
CSA	53	HALLS CROSSING SEWER UPGRADE
CSA	57	BULLFROG/HALLS CROSSING ALTERNATIVE ENERGY
CSA	58	PARKWIDE UTILITIES MAPPING
CSA	66	DANGLING ROPE DOCK/WINCH UPGRADE
CSA	69	BULLFROG BOAT READY AREA
CSA	74	HALLS CROSSING WATER UPGRADE
CSA	76	WAHWEAP SOLID WASTE/RECYCLE
CSA	80	WAHWEAP WASTEWATER TREATMENT
CSA	82	HALLS CROSSING EARTH BREAKWATER
CSA	83	BULLFROG STABILITY EARTH BREAKWATER
CSA	84	UPLAKE BREAKWATER
CSA	85	HITE RAMP NEW PARKING LOT
CSA	87	BULLFROG/HALLS CROSSING LIFT STATION REPLACE
CSA	88	HITE DCP UPDATE

MAINTENANCE ACCOMPLISHMENTS

Training

Training for maintenance staff: pest control, hazmat, water/wastewater treatment, backflow prevention and certification, sewer, fire, boat engine technical schools, Swift Water Rescue Class, DOIMOC, electrical training, Facilities Workshop, conducted Navajo Speaking Training courses, COTR, and COR Refresher.

Staff attended regular safety meetings & required training sessions.

Staff provided instruction and assistance at DOIMOC and Regional Dive Seminar.

Uplake

Completed year five without a lost time accident at Bullfrog or Halls Crossing. Recorded one lost time accident at Hite (Gregory/knee), recorded two injury accidents with no lost time. No vehicle accidents.

New Equipment and Boats

Light Plant
4X4 sewage pumper truck
Re-use small pickup (loaned to fees)
Re-use Dodge 1/2 ton
New engine installed 225
Painted, new decking, seats, engine repairs 191
Engine overhauled 261
Outdrive rebuilt 241
Eight props replaced and repaired 241
Replumbed new sewer truck
Loaded covers installed on dump trucks

Utilities

Re-established the backflow prevention program at Bullfrog.

Replaced hoses on BPO hose reels (BF and HC)

Built and installed a waste separator for the BF BPO barge dumping operation.

Rebuilt hose reels on pumpouts BF and HC. Used a new type fitting for improved reliability.

Repaired irrigation line in the Maintenance yard. New backflow prevention device.

New power line to well house at BF.

Replaced BPO grinder at BF.

Installed new chlorine pumps at BF.

Installed swamp cooler at BF BPO.

By contract, emergency generators at lift stations (7).

Two new hydrants placed in the corridor project.

Repaired hydrant in trailer village.

Bullfrog

Had three employees assist in Defiance House trail rehabilitation.

Completed another successful year on beach cleanup. Canyons cleaned included Halls Creek Bay, Moki Canyon, Blue Notch, North Bullfrog, Stanton, Hite Beaches, Dirty Devil, Farley, Ferry Cove, Hansen, Knowles, Hobie Cat and other smaller unnamed beaches. Total trash removed was 601 bags.

Received and placed in service, 13 new microflush toilets.

Completed rehabilitation of government dock. This included bringing power to the dock, new deck boards (plastic), new corner bumpers, and bang boards. Repositioned to make symmetric.

Assisted with tank inventory, safety inspections, and hazardous chemical inventory, and environmental audit.

Employees on the move included Robert Adams, transferred Downlake, Ken Coss selected as Carpenter Helper.

Cable and Road system by contract Stanton Creek, Bullfrog South. Rerouted road system.

Litter pickup in Bullfrog area resulted in 85 bags removed.

Updated the MSDS program and books.

Repaired wind damage to courtesy docks twice. Structural damage where the dock attaches.

Sign inventory at Bullfrog and Halls Crossing.

Painted curbs in the Marina Area.

Replaced all white breakwater lights at Bullfrog.

Installed new windows in the fee booths.

Maintenance office/lab at Bullfrog received a new roof and swamp cooler.

Upgraded panel box in old fire bay.

Halls Crossing

Refurbished dock from downlake.

By contract, emergency generator at lift stations (2).

Replaced decks and porches at HC801 and MH16.

Rehabilitated quarters HC02.

Replaced lift station floats.

Dealt with several major power line problems. Underground failures, burned up transformer, and concession caused failures.

Generator control room installation.

By contract, repaired new entrance signs.

Hite

New fire station.

Repaired courtesy docks. New bang boards.

By contract, emergency generator at lift station.

By contract, lagoon upgrade.

Replaced one leg of the power line to the lake pump. New lake pump.

Installed traffic counter loop and moved counter at road.

Traffic paint on parking and dumpster area.

Installed oil-less bearing pumps on pumpout.

Developed trailer pad for fees person.

DOWNLAKE BUILDING & UTILITIES AND ROADS & TRAILS

General

Cleanup actions

Performed beach cleanup of Wiregrass, Ice Cream, Lone Rock and Crosby Canyons

Performed major cleanup for maintenance yard and lower warehouse.

By far, the biggest accomplishment for Building and Utilities was the sustainment, development, and enhancement of facilities and infrastructure within personnel, budget, and material constraints. In other words, making everything work as it should in times of depressed budgets and limited manpower.

Buildings

Microflush toilets at Lone Rock. Minor adjustments.

Comfort stations on line at Lone Rock.

Assist in gathering rocks for post and cable at Lone Rock.

Antelope Point courtesy docks sustained fire damage.

Installed and removed courtesy docks at Antelope Point.

Sent personnel to Chickasaw NRA to pickup Boom Truck.

Replaced broken windows at the north entrance station.

Contracted for the installation of HVAC at DRO.

Fire and EMS support to Ranger Division

Painting of DRO exterior - in progress.

Installed security screens at all entrance stations.

On-going work orders for building repairs.

UTILITIES

Lone Rock

Troubleshoot water/electrical systems prior to startup.

Added well flushing capabilities.

Installed drain/overflow on water reservoir.

Installed water filtration to the system

Conducted confined space entry operations on the water reservoir.

Conducted well development by flushing the well for 72 hours.

Contractual support as well as plan reviews for various construction contracts, including:

Transporting personnel and materials to Dangling Rope for sewer lagoon liners.

Removal of the photovoltaic inverter system.

Assisted contractor in the installation of generator sets at the lift stations.

Procured regulatory compliance for the sludge removal at Dangling Rope.

Conducted garbage compactor operations for Dangling Rope throughout the summer.

Program development:

Developed a backflow prevention program for downlake.

Developed a valve-exercising program for Wahweap.

Rewired sign shop/installed new breaker panel.

Installed surge protection on all entrance stations.

Rainbow Bridge:

Rehabilitated one dock.

Assisted in the removal of old vault toilet and installation of new bathrooms.

Repaired Rainbow Bridge ramp.

Installed new motorized loading ramp at the warehouse.

Project development:

Automation of the Lees Ferry Water Treatment Plant.
Installation of the Orchard Water Line at Lees Ferry.

Support to other Parks:

Troubleshooting of electrical systems at Navajo Bridge Visitor Center.
Assisted Navajo NM in the hauling of water, garbage, electrical inspections, and testing of fire hydrants.

Dangling Rope:

Installation of new boat pump out system.
Installation of a heliport.
Installation of electrical lighting on the heliport.
COR/Inspector assistance for the sewer lagoon liners.
Removal of the photovoltaic inverter system.
Assist in the upgrades of the CAT3508 propane fired generators.

Lees Ferry:

COR/Inspector assistance for the installation of the dedicated water line.
Installation of the Clivius Multrum system restrooms along the Colorado River corridor.

Wahweap:

Rainbow Bridge shade structure.
Petroglyph trail rehabilitation.
Flint trail rehabilitation.
R/R engines boat 450.
Stripe Wahweap roads and parking lots.
Lonely Dell Ranch Road rehabilitation.
Pulled Boat 282, rehabilitated, and painted.
Put Boat 282 back in the water.
Crack-sealed Wahweap roads and parking lots.
Stripe State Line parking lot.
Installed signs at Tree Rook Ruin.
Removed Domingus Overlook Mon.
Defiance House trail project.
Stripe LakeShore Drive.
Installed new restrooms at Rainbow Bridge.
Rainbow Bridge walkways.
Lone Rock project.
Antelope Point ramp extension.
Construct trail at north entrance.
Remove kiosk from Lone Rock
Asphalt overlays at LakeShore south entrance and utility cuts at Itza Pizza.
Airport parking lot rehabilitation.
Pulled Antelope breakwater and courtesy docks.
Installed Antelope courtesy docks.
Concession dives.
Cut up old vault toilet from Rainbow Bridge and removed.
Remove tamarisk from intersection of Wahweap/Lakeshore.
Start trail work project for 6 toilets on river.

HOUSING

Bullfrog

--BF701A, rehab consisting of removal of old carpet and vinyl. New carpet installed by contractor. Vinyl and all other work completed by Maintenance staff. Painted throughout. New metal doors installed in back of garage and storage room.

--BF702A, stretched carpet, painted, range hood.

--BF703A/B, BF704A/B, removed old siding, repaired outer walls, stucco.

--BFMH15, built new steps/small porch at entry.

--BFMH28, built new steps/small porch at entry.

--BFQ099, appliances replaced, paint, sinks, commodes, swamp coolers, swamp cooler parts/repair, sprinkler controls, conduit, lawn vacuum, hose kit, lawn mower, electrical supplies, carpet cleaning in seasonal units, plumbing supplies, igniters, roof tiles.

--Removed some trees and fencing in utility corridor, replaced water, sewer, electric lines and built new fences.

Dangling Rope

--Storm doors for all units.

--Replaced appliances, pest spray, screens replaced.

Halls Crossing

--HC0001, installed carpet, vinyl.

--HC0002, rehab consisting of removal of old carpet, vinyl, sinks. New carpet installed by contractor. All other work completed by Maintenance staff. Painted throughout; replaced vinyl in kitchen, utility room, baths; replaced blinds, range, range hood, refrigerator, vanities, sinks, commodes.

--HC0003, started rehab consisting of removal of old carpet. New carpet installed by contractor. All other work completed by Maintenance staff. Replaced vinyl in kitchen, dining room, utility room, baths. Painted throughout. Replaced blinds, counter tops, vanities, sinks, medicine cabinets.

--HC0004, vinyl.

--HCMH16, built new steps/small porch at entry.

--HCM801, built new steps/small porch at entry.

--HCQ099, propane, brass fittings, water supplies.

Hite

--HI0911, blinds.

--HIQ099, propane.

Lees Ferry

--Installed pellet stoves in 206A, 206B.

--Major rehab of 201 consisting of removal of old carpet and vinyl. New carpet, vinyl installed by contractor; removed old wood stove and brick hearth and installed pellet stove by contractor. All other work completed by Maintenance staff. Painted interior. Replaced some blinds, repaired kitchen cabinets; built wood shade structure over rock patio in back.

--New storm doors for 201,203,206A,206B.

--Major rehab of 203 consisting of removal of old carpet and vinyl, vanities, sinks, medicine cabinets; removed old wood stove and brick hearth and contractor installed pellet stove. Installed new vinyl in kitchen, dining room, utility room, and baths; installed carpet by contractor. All other work done by Maintenance staff. Removed one wall in utility room, repaired plumbing to washer, and built new wall. Painted interior. Replaced blinds; installed new

vanities, sinks, medicine cabinets, lights, shower door; repaired kitchen cabinets.

--Pest spraying of all units.

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--PG0002, removed carpet in dining room and installed in hall. Installed new vinyl in kitchen & dining room.

--PG0003, installed commode, sinks, garage door opener.

--PG0006, new range hood, screen door grill, purchased fence materials for occupant to install.

--PG0007, painted living room, dining room, kitchen; installed faucet, replaced thermostat.

--PG0008, painted interior.

--PG0011, furnace supplies, electrical parts, PVC.

--PG0012, faucet, ice maker parts.

--PG0013, garage door transmitter, fan belt, door closer.

--PGQ099, paint supplies, faucets, gate latches, wire rope clips, irrigation supplies, fireplace brick.

Wahweap

--WW114 & WW119 apartments, new sewer lines, sidewalks, patio pads, retaining wall.

--WW114A, touched up paint after occupant vacated, cleaned carpet.

--WW114C, plumbing parts, touch up paint after occupant vacated, cleaned carpet.

--WW114D, minor rehab consisting of: replaced vanity, top, sink and faucet, medicine cabinet, lights; repaired ceiling texture and painted throughout; replaced range hood, cleaned carpet.

--WW0115, major rehab consisting of removal of old carpet and installed new carpet by contractor. Replaced refrigerator, range, some damaged counter tops, shower door, vanities, medicine cabinets, light fixtures, painted throughout.

--WW119A, tub enclosure, shower curtain & rod.

--WW119B, bi-fold doors, range, painted interior.

--WW0121, replaced refrigerator.

--WW0123, purchased microwave, flatware for Dangling Rope throw-down, two lamps for living room.

--WW0126, two lamps for living room.

--WWQ099, repaired furnaces in three seasonal modulars, replaced appliances, repaired swamp coolers, sprinkler heads, PVC, tools, pest spray, paint supplies, janitorial supplies, roof shingles, plumbing supplies, telephone jacks.

General maintenance repair and/or replacement projects at various residences: appliances, garbage disposals, solar hot water heaters, sprinkler systems, landscaping, fence repair, swamp cooler repairs or replacement, pellet stove repairs, window screens, light fixture problems, bathroom and kitchen fixtures, sinks, faucets, etc. also, pest control measures were implemented where and when necessary to assure all problems were resolved to the greatest extent. New Hantavirus kits were issued to all housing units.

PLANNING

Completed the review of the Visitor Survey regarding visitor perceptions and future expectations for Lake Powell and the management of PWCs (and more) to address changing social and carrying capacity issues.

Initiated planning efforts for the Hite Development Concept Plan (DCP) and Environmental Assessment. A hydro-geological study will be conducted at Hite to

determine the siltation rate of the Lake in that area and the approximate life of the Hite Marina Area.

Initiated planning efforts to develop the Colorado River Recreation Management Plan (CRRMP) and Environmental Assessment to address visitor use conflicts and carrying capacity along the 15-mile stretch of river from the Glen Canyon Dam to Lees Ferry.

Conducted a comprehensive review of the 1986 Antelope Point DCP/EA document that addressed the development of the Antelope Point Marina, a cooperative development effort with the Navajo Nation. Provided supplemental environmental information in response to the legal defensibility of this document to concerned special interest groups.

On-going environmental analyses were conducted in preparation for environmental assessments for the Wahweap Wastewater Treatment Plant and the closure of Blue Notch and White Canyon Mines.

NEPA Compliance

Thirty-two (32) projects were initiated and cleared through the NEPA process using an interdisciplinary team that provided guidance and stipulations on landscaping, lighting, erosion control, stormwater best management practices, green purchasing, etc.

Conducted six US Army COE CWA consultations to receive approval on section 10, 401 and 404 permits related to various construction projects throughout the park unit. Received renewal approval on four 5-year 404 permits for development activity lakewide, as well as at Antelope Point.

Environmental Compliance

Assessed physical hazards and radiological levels at three mines in Glen Canyon to determine cleanup actions required for closure and to write an environmental assessment document.

Initiated contract to investigate diesel contamination from an old UST site that has migrated at Halls Crossing maintenance yard.

Completed confirmation sampling and a remediation report at Wahweap maintenance area. Coordinated with State authorities and drafted a request for a letter of completion from the State of Arizona.

Conducted a preliminary assessment on the Chains Area. Collected a sample and received confirmation of soil contamination. Working with the BOR in a cooperative effort to have them conduct additional sampling in preparation for development of a draft corrective action plan.

Facilitated the completion a comprehensive environmental audit and air quality survey. Developed a new tank inventory, HAZCOM plan, and submitted budget requests to address several compliance findings.

Developed draft policy documents for approved vegetation in GLCA and standards for lighting on GLCA to reduce light pollution within the park unit.

Worked with ADEQ to provide guidance and feedback for a publication on Boating & Marina Best Management Practices.

Special Use Permits

Reissued two telephone special use permits, one new marine salvage permit, and one right-of-way for a communications line. Assisted with the environmental compliance stipulations and monitoring associated with several film permits.

VII RESOURCE AND VISITOR PROTECTION

The Resource and Visitor Protection Division functionally reorganized during the Summer of 2000. Cindy Ott-Jones remained as Division Chief. Law Enforcement Specialist David Sandbakken transferred to Criminal Investigator position vice Houseman. Brian O'Dea accepted the position of Visitor Protection Specialist. The Law Enforcement Specialist position was abolished and replaced with the position of Assistant Chief Ranger. Uplake District Ranger Mike Mayer was selected for the Assistant Chief and occupied the position on Sept 8, 2000.

PERSONNEL

Uplake District

Uplake District Ranger, Mike Mayer moved to HQ as Assistant Chief Ranger. STF Lee Buschkowsky accepted a full time position at Mt. Rushmore. STF Jeff Lauersdorf accepted a full time position at Lava Beds. David Van Nest accepted the Halls Crossing area ranger position Vice Luckesen. Richard Moore accepted the STF position at Halls Crossing vice Waterman. Mark Peterson accepted the STF position at Hite vice Kania. Colleen Dunleavy, Darrin Brandenburg and Andy Suppinger accepted seasonal LE position Uplake and all three faced delays and unemployment due to medical and background issues. Suppinger not able to be commissioned resigned.

Downlake District

Mike McGinnis, the Lee's Ferry Sub-district Ranger, transferred to Grand Canyon National Park. Colin Smith accepted the Lee's Ferry Sub-district Ranger position, transferring from Canyonlands National Park.

Tim Thompson filled the vacant Dangling Rope subject-to-furlough ranger position, and then vacated the position after 3.5 months. He transferred to Everglades NP. Brandon Weathermon accepted the position during mid-summer 2000.

Chris Pergiel, the Wahweap Sub-district Ranger, vacated the position, and accepted the position of Chief Ranger at Katmai NP. Eric Scott, from Lake Roosevelt, accepted the position of Wahweap Sub-district Ranger. Hunter Bailey, who had been a Wahweap subject to furlough ranger, filled a vacant permanent ranger position at Wahweap. Brian Stackowicz, Wahweap area ranger, transferred to Blue Ridge NP. Beth Meyers, who had been a Wahweap subject-to-furlough ranger, accepted the Wahweap permanent ranger position. Eric Lisnik and Stephen Clary accepted the subject-to-furlough positions.

FEE DEMONSTRATION PROGRAM

The fee program manager transferred to Grand Canyon February 27, 2000, and coordination and management of the fee program was taken over by Josie Sweeney during the remainder of the year.

Annual fees collected totaled \$2,198,000. Cost of collection was \$628,050. Fee demo money maintained the water quality project, graffiti removal, upgrading exhibits, additional micro flush toilets, rehabilitation of the Halls crossing DRO, an ROV, improvements to the Wahweap picnic area, and Lone Rock paving.

The Fee Program employed approximately 50 seasonal employees and about ten students. One half position for interpretation at Lee's Ferry, five VIP campground hosts at Lees Ferry and one full-time fee program supervisor.

DISPATCH

Staffing levels have remained the same since November 1999. The Arizona Criminal Justice Information System was upgraded to a DATA MAX that provided faster and more reliable access to the information system. Park eliminated the service wide data system (CIRS) and continued with the inpark data collection system. During DEC., Jan, and Feb 2000 the park evaluated a software program by CISCO for service wide use. The program was found to be unacceptable for use in the NPS. The Emergency Medical Dispatching System entered its second year of operation with (11) employees trained in this life saving service. GLEN Canyon Dispatch Center continued to provide Emergency Dispatch services for NRA and six (6) other agencies on a regular basis. Dispatch responded to 120+ request for documents from outside sources.

TORT CLAIMS

During FY00 there were 10 tort claims. Actions were taken on 10 claims. Awards were made on 3 claims, while 1 claim was denied. Total awards \$6,507.

WILDLAND PLANNING AND RESPONSE

Seven wildland fires totaling less than an acre were reported within Glen Canyon NRA during FY 2000. Most were of unknown cause. Two were identified as being caused by careless disposal of cigarettes. Vegetation involved was primarily low brush. Personnel assisted outside the park in the neighboring BLM area on the Kaiparowits. This fire totaled 300 acres and was composed of mostly Pinyon-Juniper.

The collateral duty fire management officer, Jim Bowman, moved to the Chief Ranger position in Great Sand Dunes. The FMO position is currently vacant.

Seventeen employees maintained Red Cards for a variety of job qualifications, Moore, Wozniak, Ucker, Ford, Tuttle were dispatched outside of the park on interagency assignments. The required annual 8 hour Wildland Fire Refresher was conducted in April and June.

Glen Canyon NRA continues as a member of the Color Country Interagency Wildland Fire Management Area.

STRUCTURE FIRE

Fiscal year 2000 witnessed 23 structure, vehicle, and marine fires. The primary point of ignition for most of the fires involved the electrical system and fuel vapor. Five of the fires involved houseboats. Of the most significant, one houseboat fire involved explosive vapors in the engine compartment that severely damaged the rear deck superstructure, hull, and engine compartment. Another houseboat fire involved ignition of propane gases from a supply source located too near the refrigerator. Of these houseboat fires, only one structure was lost. One houseboat fire also spread to the government dock at Antelope Point. One fire occurred at Wahweap Lodge. There were a total of 13 boat fires, 3 vehicle fires, 1 structure fire, and 5 other fires. The total damage for all of these fires was \$221,500. Thanks to the responsive performance and intensive

training of Glen Canyon NRA structure fire personnel the estimated value of property saved was more than \$2,300,000 (the value of the property involved).

MAJOR INCIDENTS

Another homicide occurred at Bullfrog in FY 2000. A concession employee was killed in his own residence. It is thought that this homicide may have been connected to a failed attempt at armed robbery of the concession's main cash vault at Bullfrog. The investigation is continuing. There were also six other fatalities during FY 2000, including one suicide by drowning at Lee's Ferry, and five accidental deaths. The Uplake rangers responded to 4 deaths, three of whom were children.

In August, two brothers, ages 8 and 11, were swimming at the rear of a houseboat on Lake Powell. Both were overcome by carbon monoxide and disappeared beneath the water in front of their friends and family. Rangers at Glen Canyon NRA have investigated a number of CO related events over the last several years. Following the most recent fatalities, national park service personnel worked with personnel from NIOSH to conduct a more intensive investigation of the causes and effects of carbon monoxide poisoning. We have been successful in bringing more public attention to this important issue.

Continuing high visitation during memorial weekend and 4th of July week required additional personnel resources from outside the park. On Memorial Weekend a rape occurred at Lone Rock Beach. This case is still open. Two of the boat fires occurred during this weekend. Over Memorial Day Event Uplake rangers generated 31 arrest, 12 of which resulted from collaborative efforts of the Kane County Drug Task Force and resulted in the seizing of Marijuana, Cocaine, Opiates, and GBH. 4th of July was also very busy, with 11 arrests made in one incident involving intoxicated individuals at lone rock beach. Uplake rangers arrested 13 individuals during the 4th.

STATISTICAL INFORMATION

The five-year record of criminal activity is as follows:

	<u>CALENDAR YEARS</u>				
	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>
Part I Offenses	66	156	145	208	139
Part II Offenses	5145	1453	1686	1777	1149
Arrests	187	195	159	311	187
Total Incidents	8843	6084	6366	7745	5232

Total incidents, above, includes vehicle and boat minor violations, and non traffic incidents

A commissioned staff that numbered 29 Rangers, 2 Criminal Investigators, and 10 Seasonals handled these incidents. Nine (9) of these rangers were STF, working six months. Six dispatch personnel facilitated operations.

Drug offenses showed an increase, 132 cases vs. 103 cases in 1999. Proactive law enforcement activities, on Lone Rock Beach and Uplake drug task force activities during Memorial Day and 4th of July, resulted in the majority of these contacts with persons using drugs.

<u>Offense</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>
Drugs	132	103	159	101	61
Alcohol	436	276	310	264	330
Weapons	68	77	81	98	74

MAGISTRATE SYSTEM

Most court proceedings before U.S. Magistrate Judge Stephen L. Verkamp were held either at the Wahweap Ranger Station or the Federal Court in Flagstaff in FY00. The Magistrate traveled to Page 11 times in FY00 to preside over the park's court cases. Rangers and investigators also attended court in Kanab, UT and U.S. District Court in Salt Lake City, UT and Phoenix, AZ.

The park is still retaining warrants for suspects who live within 80 miles of the park; all other warrants are sent to the U.S. Marshall's Service in Flagstaff, Arizona.

The Downlake District still does not have adequate holding/detention facilities. Approval was received from the Magistrate to release some prisoners on their own recognizance. All other prisoners must either be transported to Kanab, Utah, 85 miles one-way; or Flagstaff, Arizona, 135 miles one-way. Construction of a new Coconino County facility at Page, AZ is nearing completion. Supervisory staff at GLCA has met with Coconino County Sheriffs Office representatives and started procedural orientation.

VISITOR SAFETY

There were 680 documented medical incidents in CY00, 77 advanced life support cases, 395 basic life support cases and 208 minor cases or cases in which patients received assistance but they refused or did not require transport to a medical facility.

There were 95 air evacuations in CY00. A private medical helicopter service stationed in Page, Arizona handled 98% of the cases.

Dr. Robert Baron continues to serve as Medical Director of the park's EMS program. He comes to the park 11 times per year to provide continuing education for the park's EMS staff.

There were 146 Search and Rescue operations in CY00, 150 SAR incidents in 1999, 225 SAR incidents in 1998, 138 SAR incidents in 1997.

CRITICAL INCIDENT STRESS DEBRIEFING

GLCA provided support to two sister parks for major incidents during FY 00, February 1, GLCA staff assisted Zion NP, and July 1 we assisted Grand Canyon NP. In addition, staff assisted Page Police Department, Coconino Sheriffs Office, and Page Fire after a multi fatality MVA.

VISITOR FATALITIES

		<u>2000</u>		<u>1999</u>		<u>1998</u>		<u>1997</u>		<u>1996</u>
Accidental Death	4		6		10		23		11	
Natural Causes	1		3		5		2		5	
Suicide	1		1		2		1		0	
Homicide	1		1		0		0		1	
Undetermined	0	1		0	0		0			
Total Fatalities		7		12		17		26		17

GLCA GRAND TOTALS FOR FY2000:					
- PART ONE INCIDENTS	66				
- PART TWO INCIDENTS	5,145	- <i>BOAT</i>	1,419		
		- <i>TRAFFIC</i>	1,558		
		- <i>NONTRAFFIC</i>	2,168		
- SERVICE INCIDENTS	3,632				
GRAND TOTAL INCIDENTS:	8,843				
PART ONE INCIDENTS:					
ARSON (OTHER)	1				
ASSAULT	17	ASLTOTHER	14		
		ASLTSIMPL	3		
BURGLARY	7	BURGENTRY	5		
		BURGFORCE	2		
HOMICIDE	1				
LARCENY	37				
MOTOR VEHICLE THEFT - BOAT	1				
RAPE	2				
TOTAL PART ONE INCIDENTS:	66				
PART TWO BOAT INCIDENTS:					
BOATING EQUIPMENT	245	BOATEQUIP	4		
		BOATLIGHT	55		
		FIREEXT	19		
		PFDDVIOL	167		
BOAT HIT AND RUN	5				
BOAT OTHER	54				
BOWRIDING	133				
BOAT ACCIDENT/FAIL TO REPT	1				
DUI BOAT	26				
PROHIBITED OPERATIONS	111				
SPEED	462	PROXSPEED	316		
		WAKESPEED	146		
REGISTRATION VIOLATION	102				
SKIING	173				
UNDERAGE OPERATOR	107				
TOTAL PART TWO BOATING:	1,419				

PART TWO TRAFFIC INCIDENTS:				
ALCCONT	34			
DRIVING UNDER THE INFLUENCE	154	BACDUI	30	
		BACREFUSE	1	
		DUIIMV	117	
		DUIORV	6	
BIKE VIOLATION	1			
DRIVERS LICENSE VIOLATIONS	84	DLVIOL	52	
		SUSPDL	32	
HIT AND RUN MVA	15			
NO INSURANCE	11			
OFFROAD	81			
PARKING	154			
PARKING OFFROAD	4			
RECKLESS DRIVING	7			
SPEED	271			
MVA FAIL TO REPORT	3			
OTHER TRAFFICE OFFENSE	352			
UNSAFE OPERATIONS	154			
VEHICLE EQUIPMENT	193			
VEHICLE REGISTRATION	40			
TOTAL PART TWO TRAFFIC:	1,558			
PART TWO NONTRAFFIC INCIDENTS:				
ABANDONED PROP	17			
AIRCRAFT	24	AIRDELIV	1	
		AIRLOW	22	
		AIROTH	1	
LIQUOR LAW	436	ALCGIFT	11	
		ALCMIP	228	
		ALCOTH	14	
		ALCUIA	183	
ARPA	8			
AUDIO DISTURBANCE	217			
CAMPING	210			
COMMERCIAL	17	COMADVERT	4	
		COMILLOP	8	
		COMMINING	1	
		COMOTH	2	
		COMPHOTOG	2	
DISORDERLY CONDUCT	117			
DRUG/NARCOTICS VIOLATIONS	132	DRUGSPARA	9	

		DRUGSPOSS	108		
		DRUGSSALE	15		
FAMILY OFFENSE	23				
FEE VIOLATION	121				
FIREWORKS	42				
FISHING	25				
FRAUD	3				
FUGITIVE	43				
HITCHHIKING	1				
HUNTING	6				
INTERFERE WITH AGENCY	21				
LIVESTOCK	3				
MISAPPROPRIATION - SERVICES	5				
PERMIT VIOL	2				
PET OFFENSE	128				
PART TWO OTHER VIOLATIONS	17				
RUNAWAY	4				
SANITATION	300	GLASS	7		
		LITTER	47		
		SANITAND	158		
		SANITATL	62		
		SANITATW	26		
SEX OFFENSE	7				
STOLEN PROPERTY	47				
SUICIDE ATTEMPT	3				
TAMPERING	17				
TRESPASS	23				
VANDALISM	69	GOVT PROP	31		
		GRAFFITI	12		
		PRIVATE PROP	26		
WEAPONS	68				
WILDLIFE	12				
TOTAL PART TWO NONTRAFFIC:	2,168				
SERVICE INCIDENTS:					
ACCIDENTS	517	AIR	1	ACCAIR	
		BOAT	266	ACCBTPDO	1
				ACCBTPI	
		JET SKI	33	ACCJETPDO	
				ACCJETPI	
		MOTOR VEHICLE	119	ACCMVPDO	1
				ACCMVPI	
		OTHER	97	ACCOTHPDO	
				ACCOTHPI	

		OFF ROAD VEH	1	ACCOVPI	
ANIMALS & WILDLIFE	21	ANIMLDM	5		
		ANIMLWILD	16		
RENDER ASSISTANCE	1,277	ASSTCIVIL	4		
		ASSTCTZN	915		
		ASSTDEPT	275		
		CHASEBOAT	47		
		DOMDIS	2		
		EMERGCALL	22		
		VISCOMPL	12		
INSPECTIONS	392	BOATINSP	142		
		INSPECT	1		
		INSPECTD	249		
DEATHS	7	DEATHACC	4		
		DEATHNAT	1		
		DEATHSUI	1		
		HOMICIDE	1		
EMS	680	EMSALS	77		
		EMSAMA	55		
		EMSASST	153		
		EMSBLs	395		
EVIDENCE DESTRUCTION	1				
FIRES	57	FIREBLDG	4		
		FIREBOAT	18		
		FIREFALSE	3		
		FIREOTH	19		
		FIREVEH	3		
		FIREWILD	10		
PROPERTY	222	FOUNDPROP	112		
		LOSTPROP	84		
		DAMAGEGP	12		
		DAMAGEOTH	14		
HAZARDOUS CONDITION	28				
IMPOUND	53				
MAINTENANCE NEEDED	11				
MISSING	8				
RESOURCE MANAGEMENT	21				
SAR	146				
SPECIAL	128	SPECEVENT	2		
		SPECPTL	126		
SUSPICIOUS	44	SUSPCIRC	37		
		SUSPPERS	7		
UNFOUNDED ALARM	12				
UNSECURED INSTALLATION	7				
TOTAL SERVICE INCIDENTS:	3,632				
